

## The Candy Shop

**O**nce upon a time there was an older couple named Homer and Marge Simpson. They had been married for 15 years when Marge finally said to Homer, “Homey, you HAVE to get a good paying job soon! How will we ever put Bart through college with the money you make at the nuclear power plant?!” The Simpsons always seemed to be broke, but one day Homer had a brilliant idea. Homer loved to eat JellyBellies, but he thought they were too expensive and didn’t like their chewy consistency (they always get stuck in Bart’s braces). He liked hard candies better, but he had not found any that could beat the flavor of JellyBellies. Together with their uncle scientist, Uncle Wiz, they developed a hard candy with almost as much flavor as a JellyBelly. They decided to make their candies disk-shaped (i.e., Lifesavers without the hole).



### Uncle Wiz Retires!

As fate would have it, the Simpsons’ elderly uncle retired and asked them to run his small candy and nut shop. Seeing this as a good sign, the Simpsons took over the business and soon started selling the Simpson’s succulent candies in the candy shop. They named their store, *The Simpson’s Sweets Shop*.

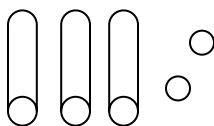
The candies were an instant hit! Knowing that people are accustomed to buying candies in rolls-- like LifeSavers candies, they started to package their candies in rolls. They argued day and night about the number of candies that should be put in a roll.

### Drama, Drama!!!

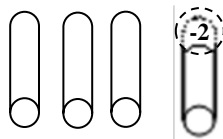
Well, the Simpsons could not come to any agreement about the number of pieces that they would put in a roll. Marge wanted to put 7 pieces in a roll of orange candy. Homer wanted to put 12 pieces in a roll of cherry candy. They did agree on one thing. If they put 10 orange candies in roll, ALL orange candy rolls would contain 10 pieces. However, they could put a different amount of candies in a Root Beer roll. But if they put 17 pieces in the Root Beer roll, ALL root beer rolls would have 17 pieces.

### Representing Candy in the Candy Shop

*Three rolls and 2 extra pieces of candy*



*Three rolls and a roll missing 2 pieces or Four rolls less 2 pieces*



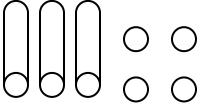
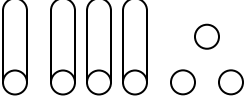
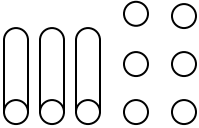
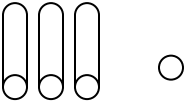
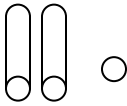
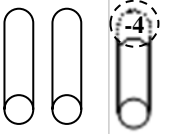
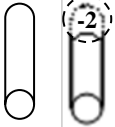

How many pieces are there altogether in each picture if...

Packing Rule Orange: 10 candies per roll

Packing Rule Rootbeer: 17 candies per roll

Packing Rule Grape: 53 candies per roll

Mrs. Simpson had the following amount of candy in the candy shop. How many pieces does she have in all?  
Write an arithmetic equation in each box.

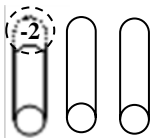
	Packing Rule	Packing Rule	Packing Rule
	There are 5 pieces in each roll.	There are 13 pieces in each roll.	There are 79 pieces in each roll.
	There are 5 pieces in each roll.	There are 13 pieces in each roll.	There are 79 pieces in each roll.
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## Krazy Kustomer Chaos

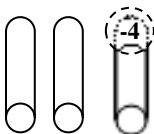
*Krusty the Clown came into the store and wanted to buy 95 pieces of strawberry candy. The packing rule for strawberry candies is 5 pieces per roll. Krusty knew that Homer was not the best math student and thought he could trick him into giving him extra candy. Krusty asked Homer to give him 10 wrapped rolls and 50 loose pieces and he would pay for 95 pieces. Is this fair? Explain.*

Follow up Questions:

1. What are 3 other ways to have 95 pieces of candy packaged, if the packing rule is 5 pieces per roll? Draw them below.
2. Draw 3 different ways to have 95 pieces of candy packaged if the packing rule is **10** pieces per roll.
3. Draw 3 different ways that the following candies can be packaged if the packing rule is 6 pieces of candy per roll.



4. Draw 3 different ways that the following candies can be packaged if there are 7 pieces of candy per roll.




## Mischievous Maggie and the Mystery Rolls

The Simpson's Sweets Shop became one of the top candy stores in Springfield. However, the Simpsons' youngest daughter, Maggie, thought that she could make the Sweets Shop sell even more candy if she could come up with a clever promotion. She had a brilliant idea for a Mystery Candy Roll. The Sweets Shop would sell Mystery Rolls which contained a mystery. Each day the Sweets Shop packaged their candy, the packing rule would be a mystery.

### Mystery Roll Contest

To make it interesting, Maggie decided that the packing rule for the Mystery Rolls would change each day and customers would not know how many candies were in the roll. The following advertisement appeared in the Sunday newspaper:

### Sunday's Mystery Roll



$x$  pieces inside

Each roll has exactly  $x$  pieces per roll!!!  
The first person who can guess what  $x$  is will receive the roll for free.

On other days, Maggie changed the packing rule.

Monday she changed the rule to  $Y$  pieces of candy per roll and customers had to figure out how many pieces of candy were in each roll.

On Tuesday, she said there were  $C$  candies per roll and so on.

# Mystery Solved!



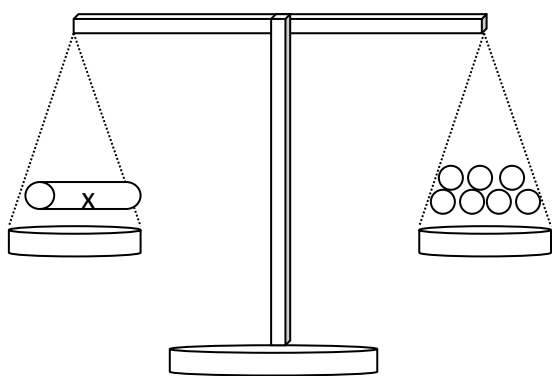
## Friday's Mystery Roll



$x$  pieces per roll

Each roll has exactly  $x$  pieces per roll.  
The first person who can guess what  $x$  is  
will receive the roll for free.

On Friday, Maggie placed the advertisement above in the window of the candy shop. Little did she know, her nephew, the 6<sup>th</sup> grade science brainiac, devised a way to figure out the *Mystery* packing rule **without guessing!** His method uses a balance scale:



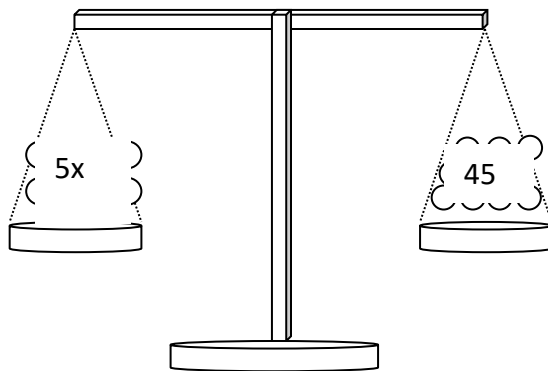
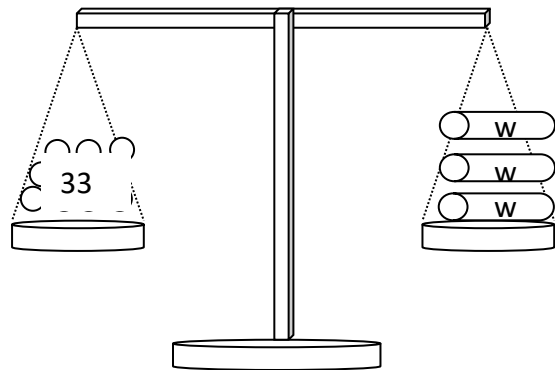
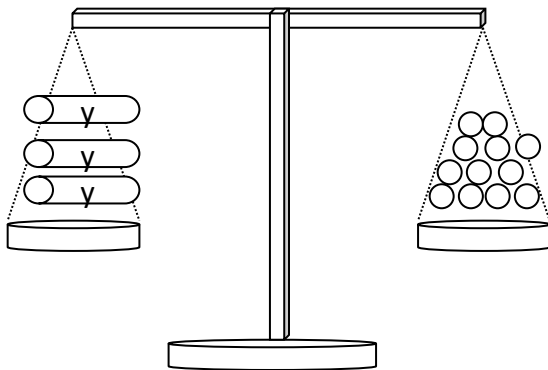
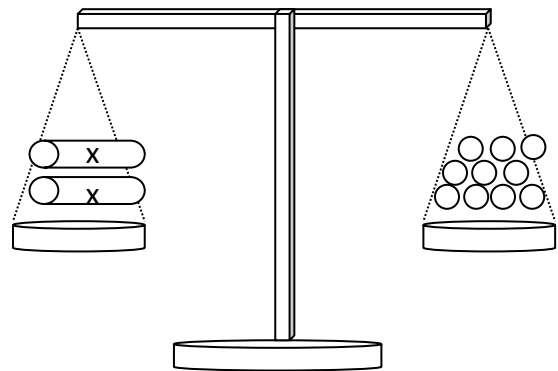
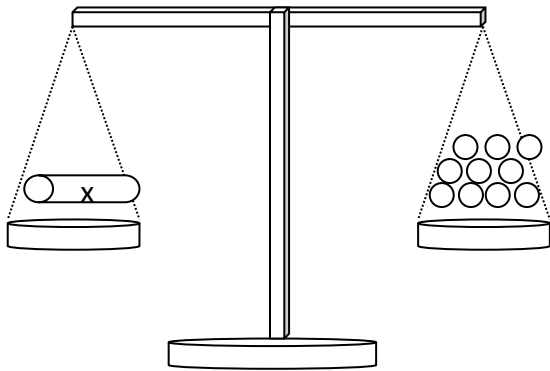
## ***Brian's Balance Strategy***

I put the *Mystery Roll* on one side of the balance. Then, I put single candies on the other side until both sides balanced. 1 mystery roll balanced with 7 pieces.

Explain how this can reveal the *Mystery Roll's* packing rule.

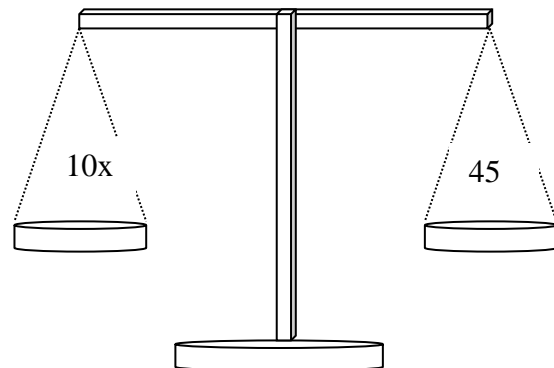
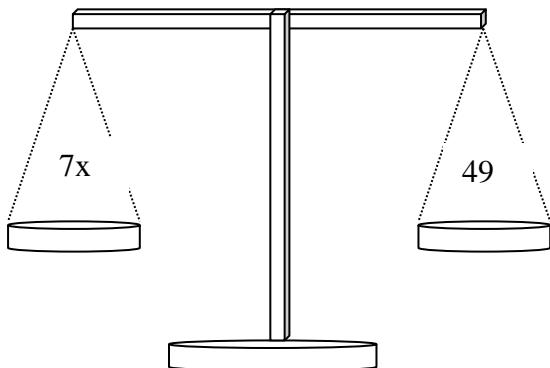
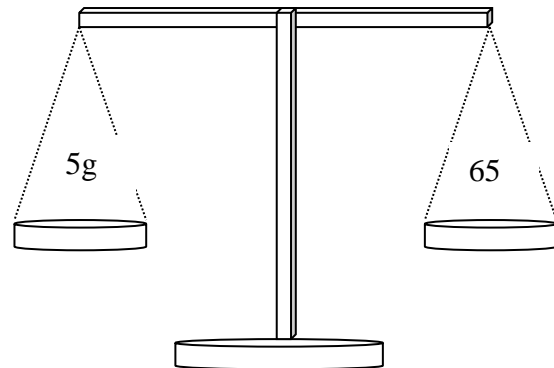
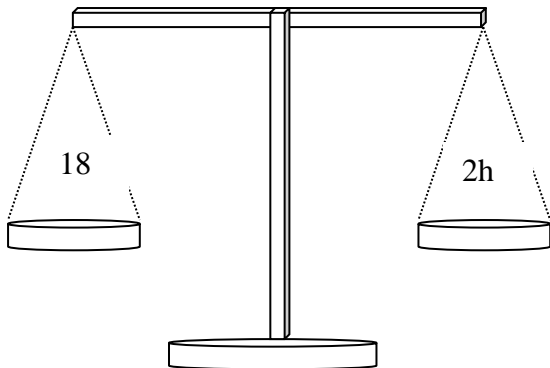
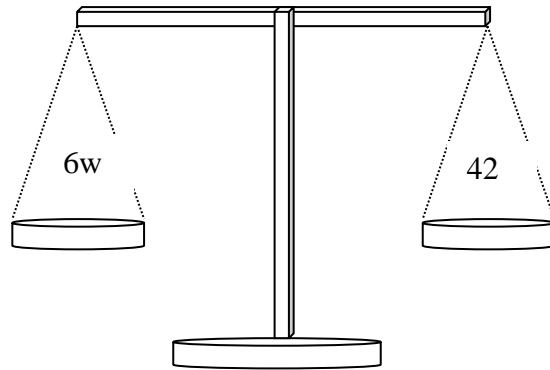
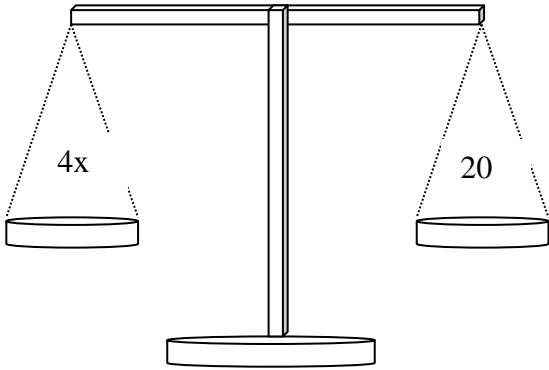
# Brian's Balances

Use Brian's Balance Strategy to figure out the Mystery Roll Packing Rule for each of the following scales.



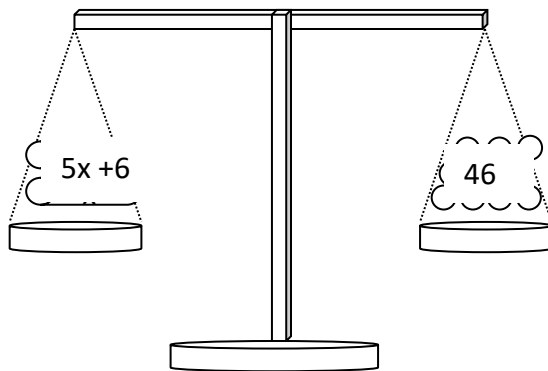
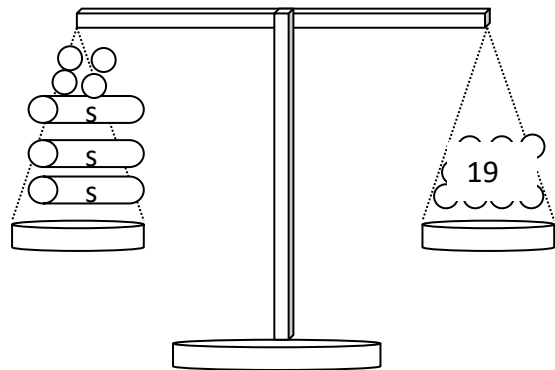
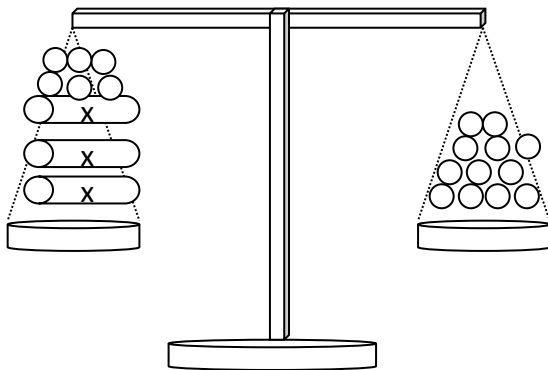
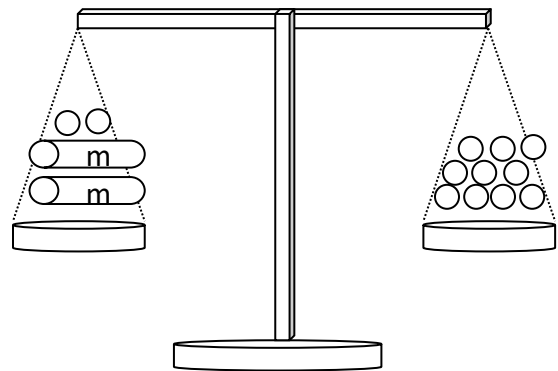
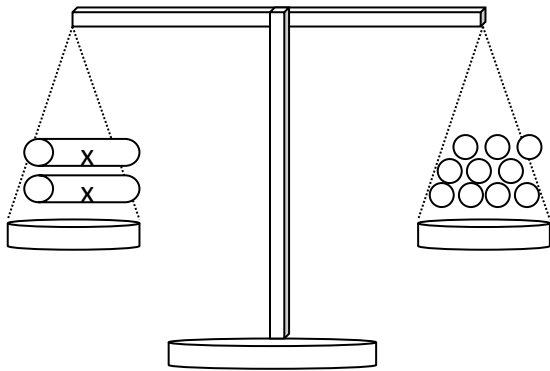
# Balance Bonanza

Solve for each variable below (i.e., find the packing rule).



# Brian's Balances Again

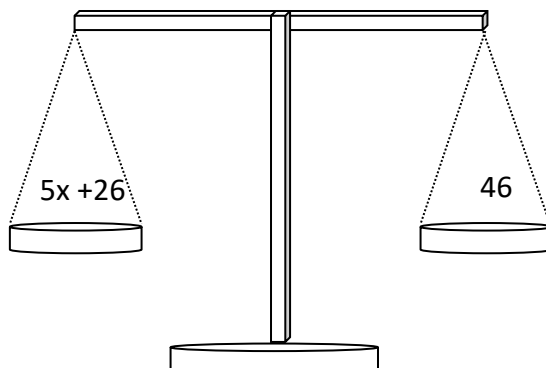
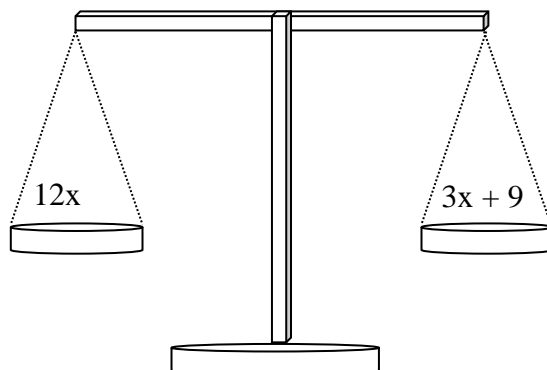
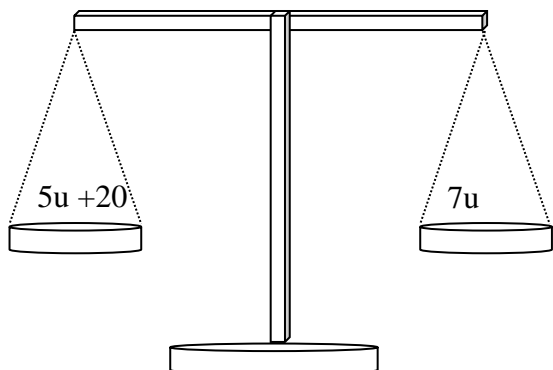
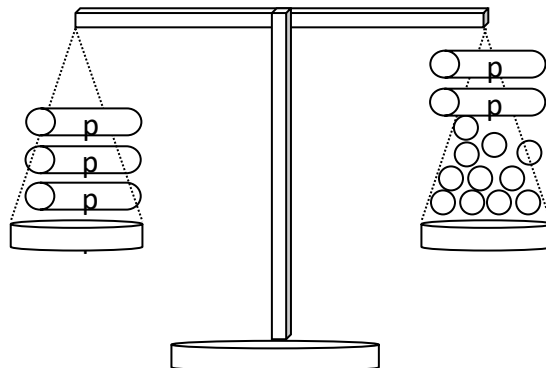
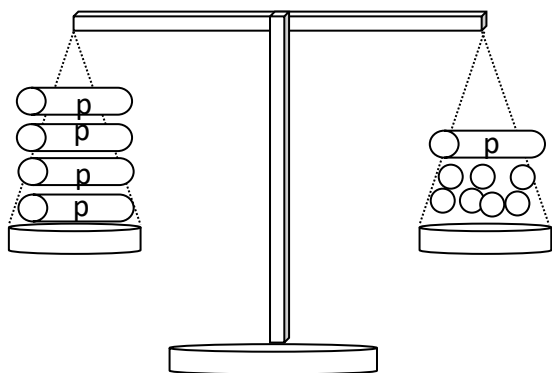
Use Brian's Balance Strategy to figure out the Mystery Roll Packing Rule for each of the following scales.





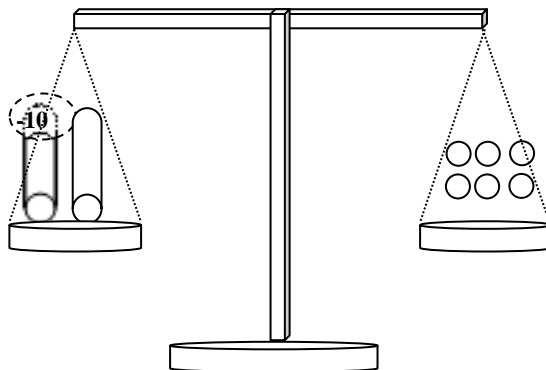
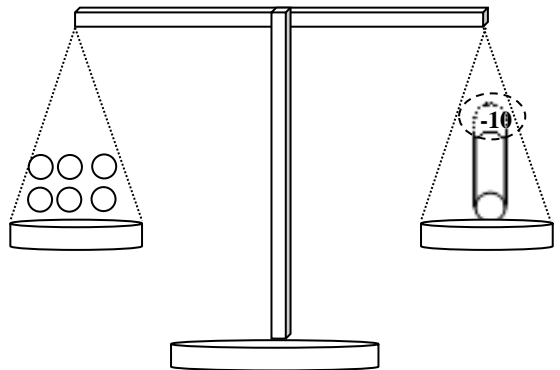
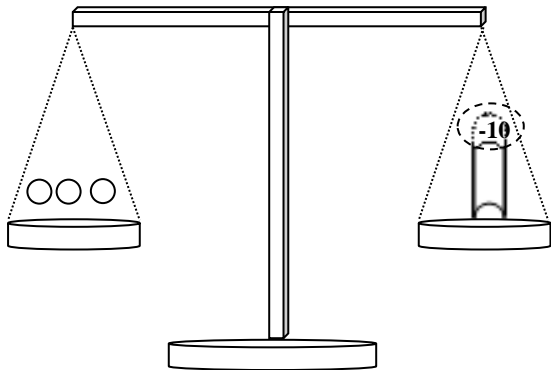
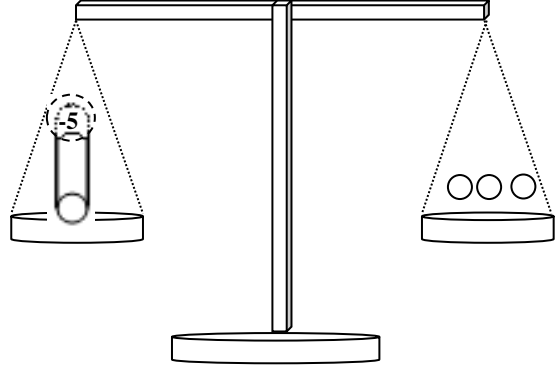
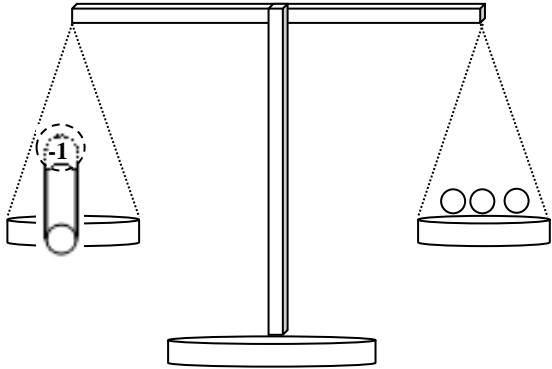
# Rambunctious Rolls!!!

Use Brian's Balance Strategy to figure out the Mystery Roll Packing Rule for each of the following scales.



# Missing Pieces Miasma

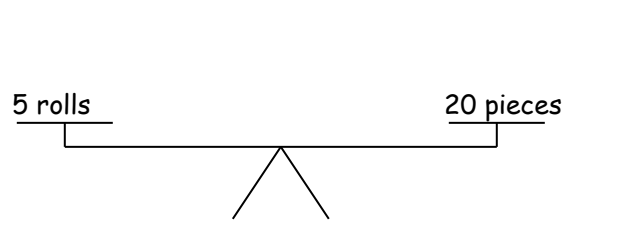
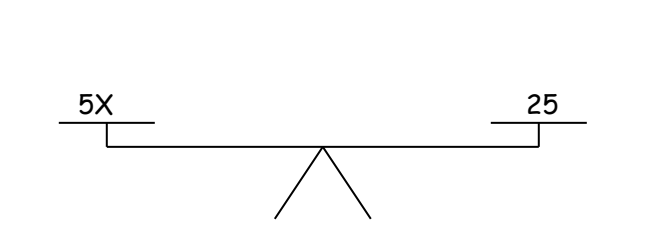
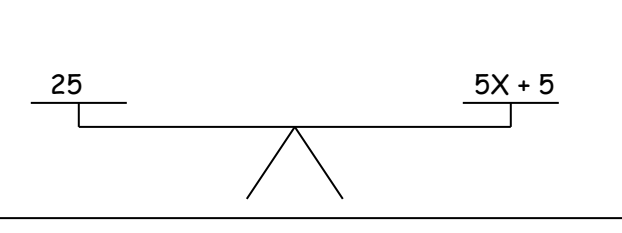
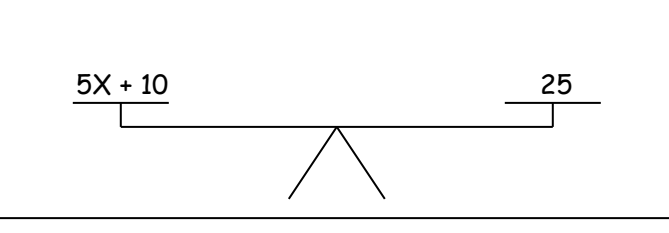
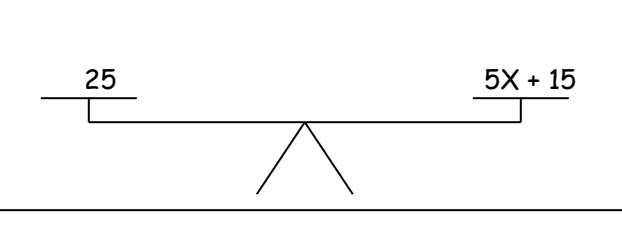
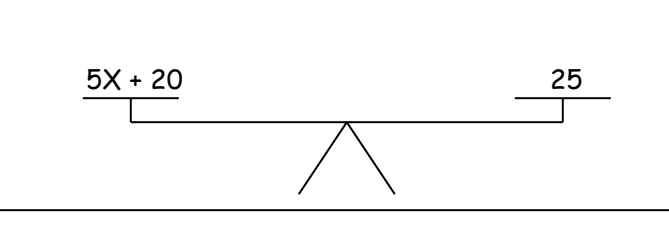
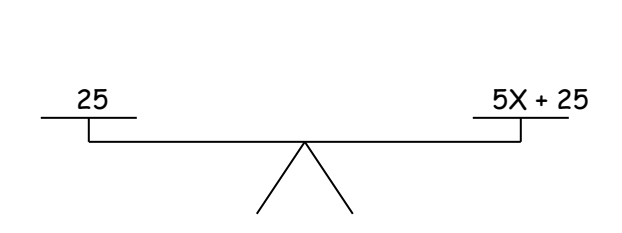
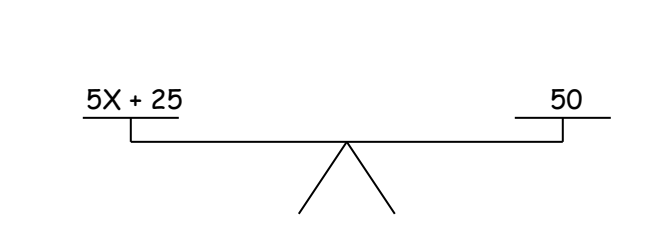
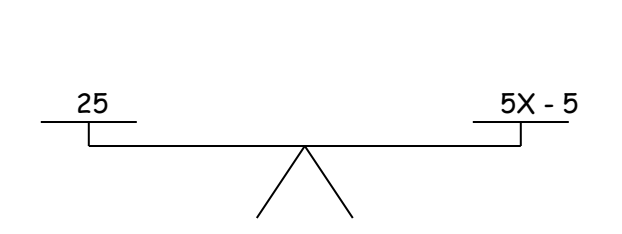
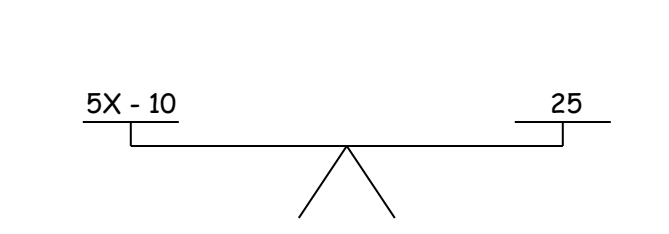
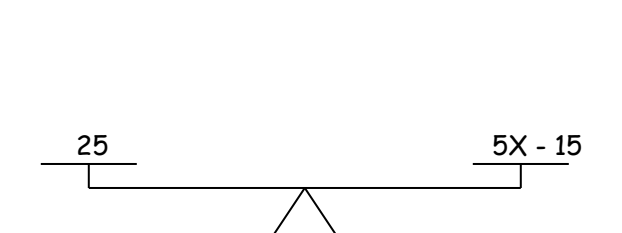
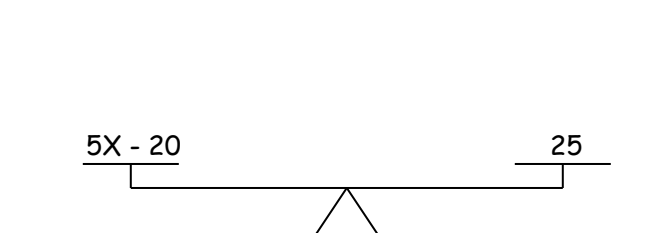
Use Brian's Balance Strategy to figure out the Mystery Roll Packing Rule for each of the following scales.



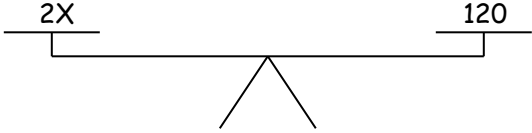
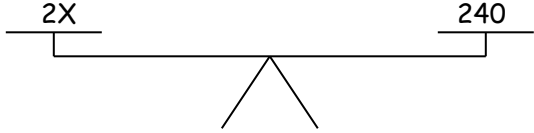
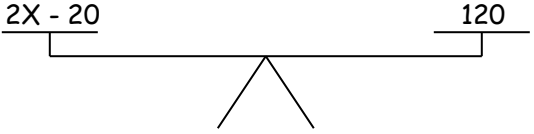
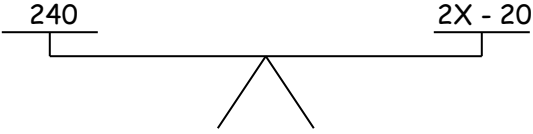
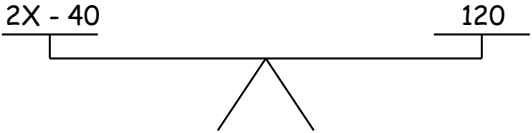
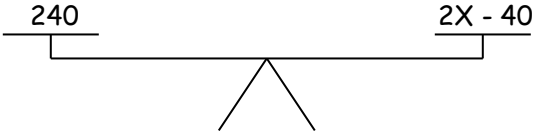
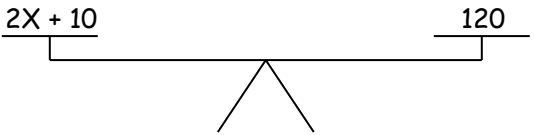
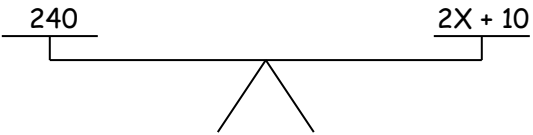
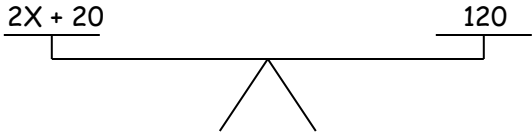
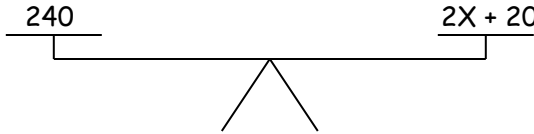
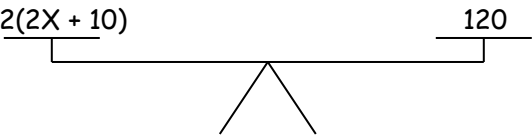
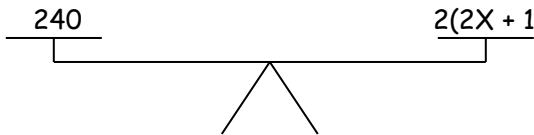
How many candies are in each roll below?

$\frac{3 \text{ rolls}}{\quad} \quad \frac{18 \text{ pieces}}{\quad}$	$\frac{4X}{\quad} \quad \frac{24}{\quad}$
$\frac{4x}{\quad} \quad \frac{20}{\quad}$	$\frac{4X + 4}{\quad} \quad \frac{20}{\quad}$
$\frac{20}{\quad} \quad \frac{4x + 8}{\quad}$	$\frac{40}{\quad} \quad \frac{4X + 8}{\quad}$
$\frac{4x + 8}{\quad} \quad \frac{16}{\quad}$	$\frac{4X + 4}{\quad} \quad \frac{16}{\quad}$
$\frac{16}{\quad} \quad \frac{4X}{\quad}$	$\frac{16}{\quad} \quad \frac{4X - 4}{\quad}$
$\frac{4X - 8}{\quad} \quad \frac{16}{\quad}$	$\frac{4X - 12}{\quad} \quad \frac{16}{\quad}$

How many candies are in each roll below?

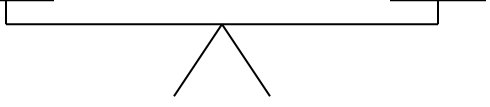
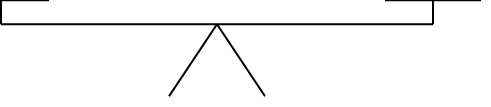
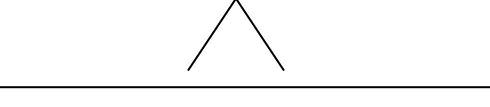
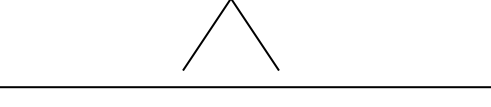
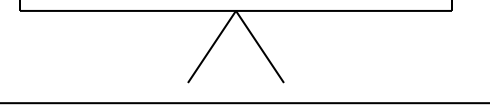
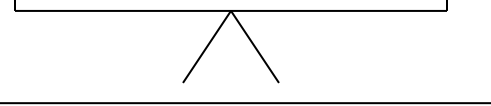
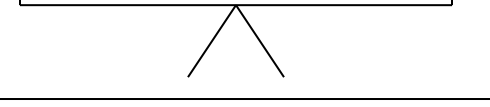
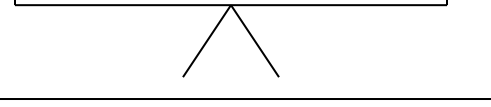
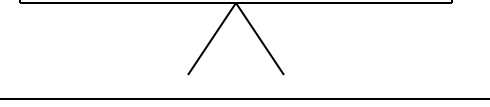
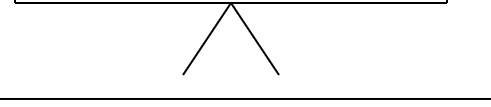
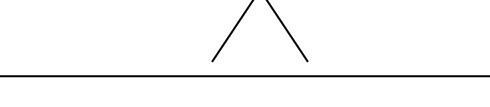

 <p>5 rolls</p> <p>20 pieces</p>	 <p>5X</p> <p>25</p>
 <p>25</p> <p>5X + 5</p>	 <p>5X + 10</p> <p>25</p>
 <p>25</p> <p>5X + 15</p>	 <p>5X + 20</p> <p>25</p>
 <p>25</p> <p>5X + 25</p>	 <p>5X + 25</p> <p>50</p>
 <p>25</p> <p>5X - 5</p>	 <p>5X - 10</p> <p>25</p>
 <p>25</p> <p>5X - 15</p>	 <p>5X - 20</p> <p>25</p>

How many candies are in each roll below?



How many candies are in each roll below?

$\frac{X+1}{\quad} \quad \quad \quad \frac{45}{\quad}$ 	$\frac{X+X+1}{\quad} \quad \quad \quad \frac{45}{\quad}$ 
$\frac{X+X+X+1}{\quad} \quad \quad \quad \frac{46}{\quad}$ 	$\frac{3X+1}{\quad} \quad \quad \quad \frac{46}{\quad}$ 
$\frac{X+X+X+1}{\quad} \quad \quad \quad \frac{49}{\quad}$ 	$\frac{X+X+X+1}{\quad} \quad \quad \quad \frac{X+49}{\quad}$ 
$\frac{X+X+1}{\quad} \quad \quad \quad \frac{X+116}{\quad}$ 	$\frac{3X+35}{\quad} \quad \quad \quad \frac{X+49}{\quad}$ 
$\frac{7X+14}{\quad} \quad \quad \quad \frac{6X+18}{\quad}$ 	$\frac{3X+19}{\quad} \quad \quad \quad \frac{6X+10}{\quad}$ 
$\frac{10X-15}{\quad} \quad \quad \quad \frac{9X+20}{\quad}$ 	$\frac{6X+35}{\quad} \quad \quad \quad \frac{13X-7}{\quad}$ 

Solve each of the equations below. You may use a balance to help with your reasoning if you choose.

1).  $a + 5 = 23$

2).  $s - 7 = 15$

3).  $d - 9 = 17$

4).  $12 = x + 4$

5).  $7 = y - 2$

6).  $4 + y = 2y$

7).  $8x - 4 = 9x$

8).  $3x = 2x + 11$

9).  $X - 3 = -1 + 4$

10).  $X + 7 = 2x + 5$

11).  $10x + 6 = 11x$

12).  $18x + 64 = 19x$

13).  $17x = 16x - 24$

14).  $-8x + 9x = -1 + 7$

15).  $3x - 2x + 5 = 5$

16).  $2w + 10w = 48$

17).  $8y + y = 45$

18).  $16 = 10t - 8t$

19).  $5x + 12 = 8x$

20).  $24g - 22 = 2g$

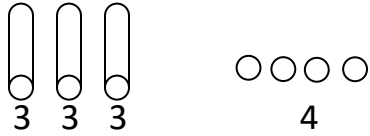


# Label It

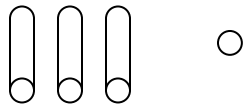
Label each picture below using the given packing rule:

## EXAMPLE

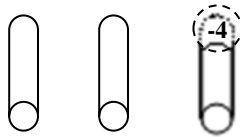
PACKING RULE: 3 pieces per roll.



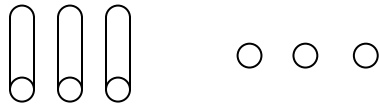
A. PACKING RULE: 7 pieces per roll



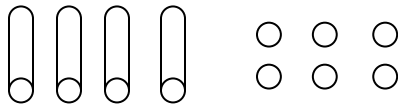
B. PACKING RULE: 10 pieces per roll



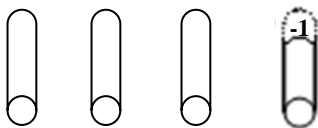
C. PACKING RULE: X pieces per roll



D. PACKING RULE: Y pieces per roll

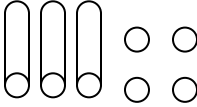
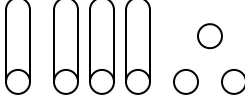
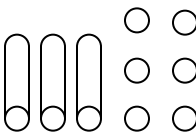
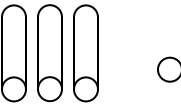
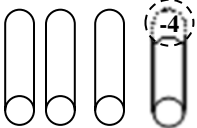
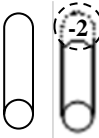



E. PACKING RULE: W pieces per roll

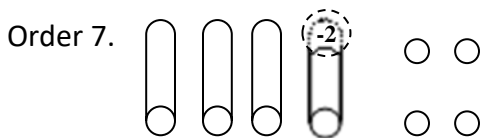
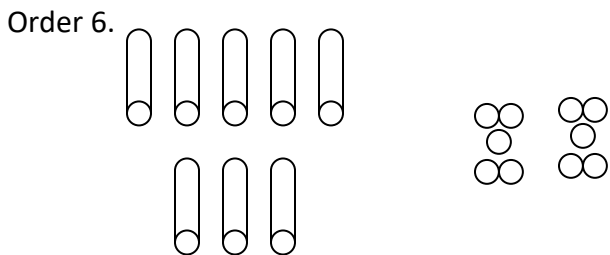
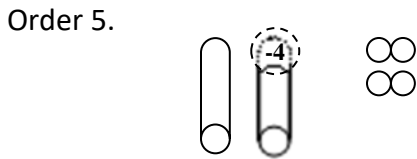
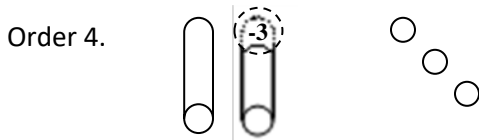
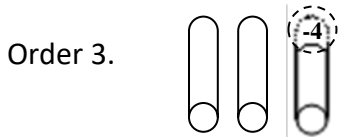
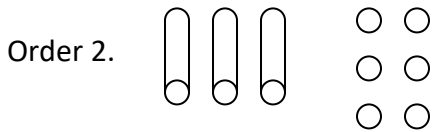
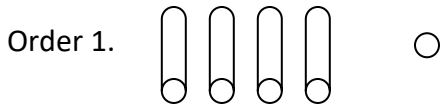


Mrs. Simpson had the following amount of candy in the candy shop. How many pieces does she have in all?

### Packing Rules

	12 pieces in each roll.	10 pieces in each roll.	$x$ pieces in each roll	$m$ pieces in each roll.
				
				
				
				
				
				
				

On Tuesday, the Sweet Shop received seven international orders on their website. Lisa packaged each order as shown below. To keep track of their international orders, they decided to write down how much candy sold. For each order below, write words or an expression to represent the amount of candy that is on each table if the packing rule is X pieces per Mystery Roll?



Simpsons' Sweet Shop International Orders Inventory	
Order 1:	
Order 2:	
Order 3:	
Order 4:	
Order 5:	
Order 6:	
Order 7:	

## Customer Corrections

1. Marge packaged an order for  $7u + 8$  candy. The customer called back and added  $3u$  more candy. How much candy is in the order now?
2. Marge packaged an order for  $10s - 4$  candy. The customer called back and canceled  $5s$  candy. How much candy is in the order now?
3. Marge packaged an order for  $5f + 7$  candy. The customer called back and added  $2f + 2$  more candy. How much candy is in the order now?
4. Marge packaged an order for  $7u + 8$  candy. The customer called back and added 1 more candy. How much candy is in the order now?
5. Marge packaged an order for  $7u + 8$  candy. The customer called back and canceled 1 candy. How much candy is in the order now?
6. What number comes right after  $x$ ? Right before  $x$ ?

# Disorderly Conduct

Saturday was a busy day at the Simpsons Sweet Shop. At the end of the day, 8 customers had placed telephone orders and Lisa wrote the orders on slips of paper. Before closing the shop that night she got each customer's order ready and placed the candies on the table next to their receipt. However, dastardly Bart snuck in the shop after Lisa left and switched around the receipts so they no longer matched the candy order. Can you help Lisa match the order with the candies???

Sideshow Bob  
 $2x + 3 + 3x$

Flanders  
 $3x + 2x - 1$

Milhouse  
 $2x - 2 + 4$

Patty  
 $5x - 5$

Crazy Cat Lady  
 $x + x - 1 + x$

Itchy  
 $x + 1 + x + x + 4$

Scratchy  
 $x - 2$

Selma  
 $3x - 2 + x + 2x - 3$

Order 1

Order 2

Order 3

Order 4

Order 5

Order 6

Order 7

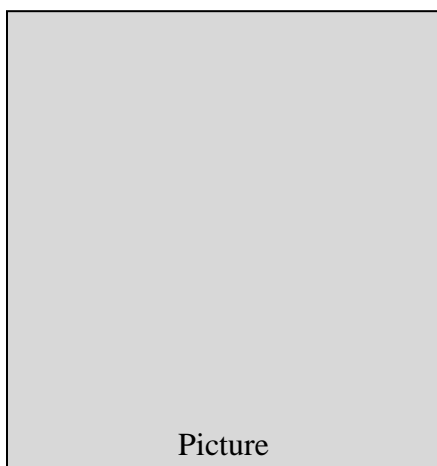
Order 8

# Bart in Charge

The Simpsons had to go to a wedding Friday so they left Bart in charge of the Sweet Shop. However, Bart can't read Lisa's notes that she takes when people place orders for candies over the phone. Can you help Bart know how many candies to make for the orders below by drawing a picture of the candies he would need to gather for the customers?

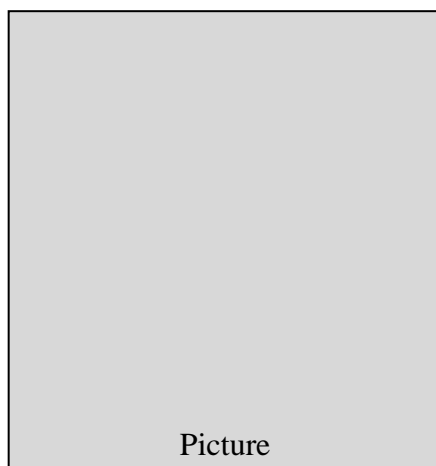
Order One

$$3T - 3 + 2T + 3$$



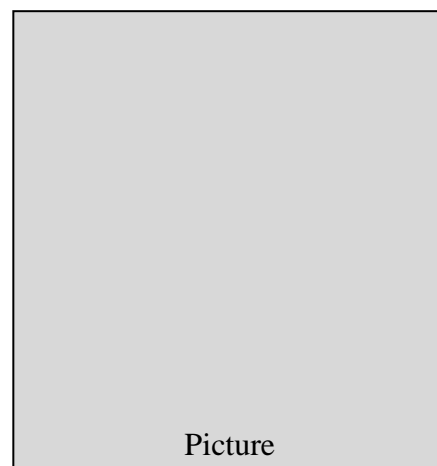
Order Two

$$6T + T - 2 + 7$$



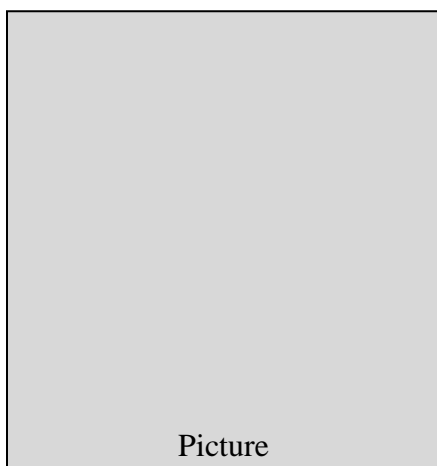
Order Three

$$5 + 9T + 3 + 2T - 7$$



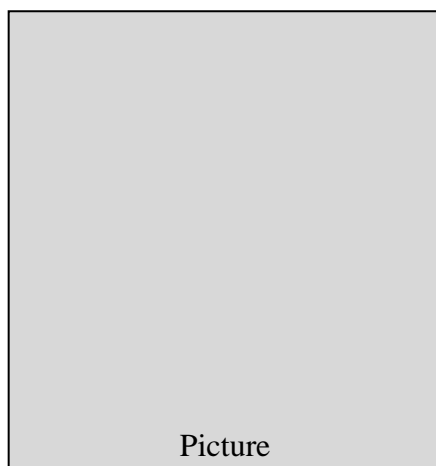
Order Four

$$3T - 4$$



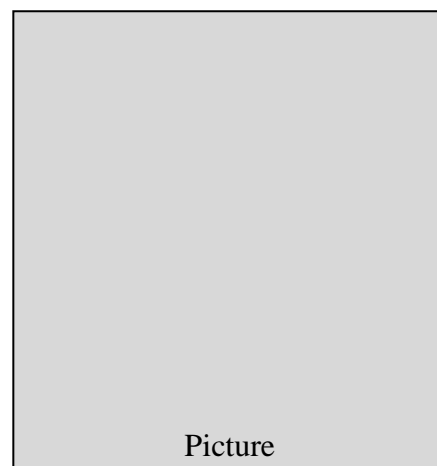
Order Five

$$T - 1 + 3T + 2$$



Order Six

$$-2 + 3T + 4T + 2$$



## Mixed Up Expressions

Which algebraic expressions are equivalent to each other?

A.  $8x + 4 + 4x - 10$

B.  $3x$

C.  $6x + 4$

D.  $x + 5 + x - 4 - 2$

E.  $12x - 6$

F.  $2x - 1$

G.  $6x - 3$

H.  $4x + x - 5 + x + 9$

I.  $2x + x - 2 + 2 + 2x - 2 + x - 1$

J.  $3x - 3 + x - 2 + x - 1 + 7x$

K.  $4 + x + 2x - 3 - 1$

L.  $2w - 1$

## Saturday Night Special

On Saturday, Lisa decided to run a special sale on cherry candies. The packing rule for this candy was  $c$  candies per roll.



How much total candy did each person order below? Write your answer as a picture **AND** an expression.

ORDER	PICTURE	ALGEBRAIC EXPRESSION
Sideshow Bob 4 specials		
Mayor Quimby 3 specials		
Millhouse 6 specials		
Grandpa 10 specials		

Circle all of the expressions below that represent Sideshow Bob's candy.

$4c + 4$

$4c + 16$

$4(c + 4)$

$4c$



# More Specials

Draw a picture AND expression for the candies below.

Monday Madness!!!

**Get  $x + 3$  candies for the cheap price of \$1!!!**

Sale is only good today!

- A.  $2(x + 3)$
- B.  $4(x + 3)$
- C.  $10(x + 3)$

Terrific Tuesday!!!

**Get  $r + 7$  candies for the cheap price of \$1!!!**

Sale is only good today!

- A.  $3(r + 7)$
- B.  $5(r + 7)$
- C.  $14(r + 7)$

Wicked Wednesday!!!

**Get  $h - 2$  candies for the cheap price of \$1!!!**

Sale is only good today!

- A.  $3(h - 2)$
- B.  $6(h - 2)$
- C.  $10(h - 2)$

Freaky Friday!!!

**Get  $2f + 6$  candies for the cheap price of \$1!!!**

Sale is only good today!

- A.  $4(2f + 6)$
- B.  $7(2f + 6)$
- C.  $9(2f + 6)$

## Simplifying Expressions

Write each expression below without parentheses (SIMPLIFY). Draw pictures, if necessary.

a.  $2(x + 4)$

b.  $3(2x + 1)$

c.  $3(c - 1)$

d.  $2(T - 5)$

e.  $4(6T + 12)$

f.  $4(2T - 3)$

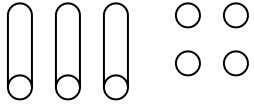
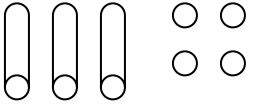
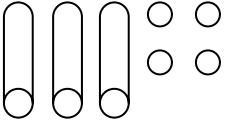
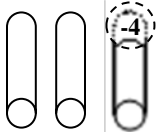
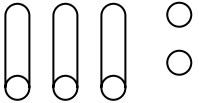
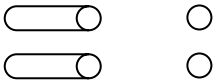
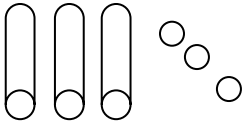
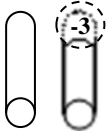
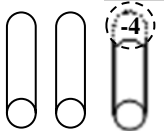
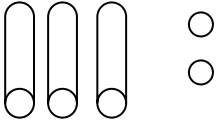
g.  $2Y - 3 + 3Y + 5 - 7$

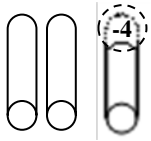
h.  $4(2W - 5)$

i.  $8G - 3 + 2G - 16$

j.  $3(T + 4 + 2T)$

k.  $2(2x + 5 + x - 4)$

Packing Rule	On the shelf	Simpsons Make	Picture-Pieces in all	Number-pieces in all
$x=15$				
$Y=7$				
$W=3$				
$C=?$				45
$V=?$				82



1.

Number of pieces per roll	Total number of pieces
10	
20	
5	
P	
X	

?

2.

Number of pieces per roll	Total number of pieces
5	
7	
9	
11	
N	$5N + 4$

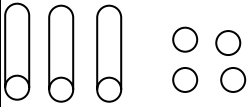
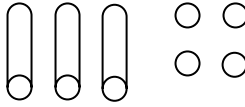
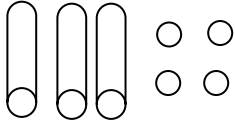
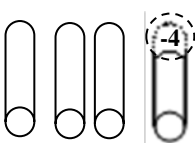
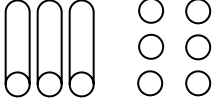
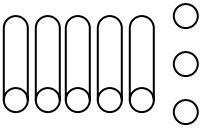
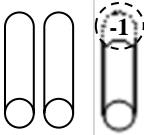
?

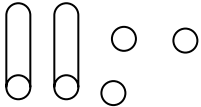
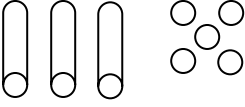
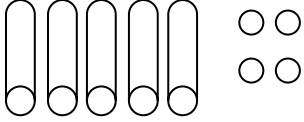
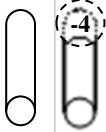
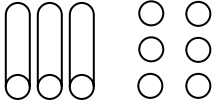
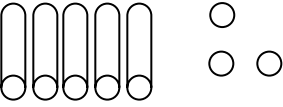
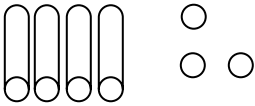
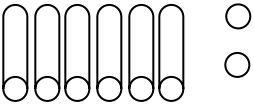
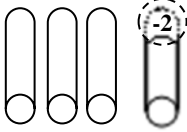
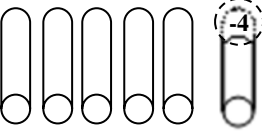
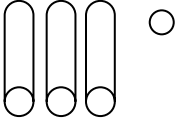
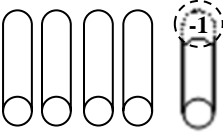
3.

Number of pieces per roll	Total number of pieces
6	
8	
10	
12	
R	$2R - 4$

### Challenge:

Is  $6x - 5$  the same amount of candies as  $6s - 5$ ? Why or why not?

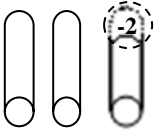
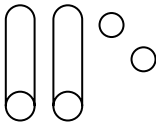

Packing Rule	On the shelf	Simpsons Make	Picture-pieces in all	Expression
X				
Z				
P				
X	$X + 5$	$3X - 5$		
R	$R + 7$			$3R - 1$
B	$2(B + 3)$	$B + 10$		

On the shelf	Simpsons Make	Picture-pieces in all	Expression
			
			
			
			
			
			

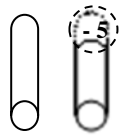
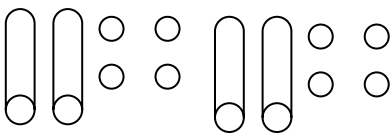

# Making More Candies

The Simpsons have this much candy on the shelf. Draw pictures AND an expression to show how much candy they have on the shelf after the transaction takes place.

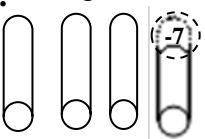
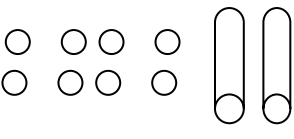

**A.**

Original Amount	New Candies	Total
		
Expression	Expression	Expression

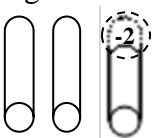
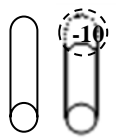

**B.**

Original Amount	New Candies	Total
		
Expression	Expression	Expression

**C.**

Original Amount	New Candies	Total
		
Expression	Expression	Expression

**D.**

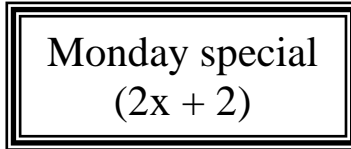
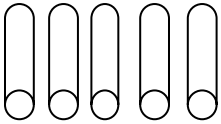
Original Amount	New Candies	Total
		
Expression	Expression	Expression

# Selling Candies

The Simpsons have this much candy on the shelf. Use the picture to figure out how much candy they have on the shelf after they sell the special each day.

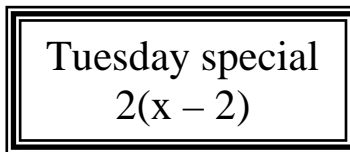
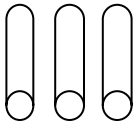
## SELL

On the shelf



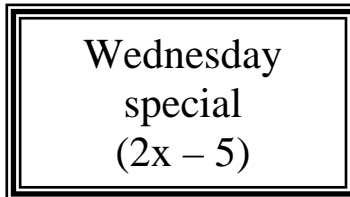
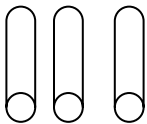
Total Left  
Expression

On the shelf



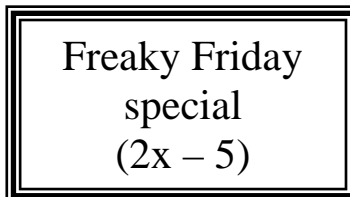
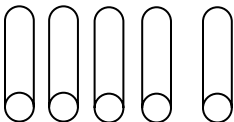
Total Left  
Expression

On the shelf



Total Left  
Expression

On the shelf



Total Left  
Expression

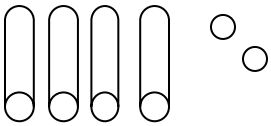


# Selling Candies

The Simpsons have this much candy on the shelf. Use the picture to figure out how much candy they have on the shelf after they sell the special each day.

## SELL

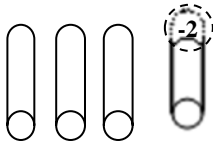
On the shelf



<p>Monday special <math>(3x + 1)</math></p>
---

Total Left  
Expression

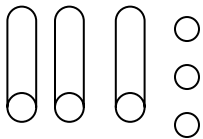
On the shelf



<p>Tuesday special <math>2(x - 4)</math></p>
--

Total Left  
Expression

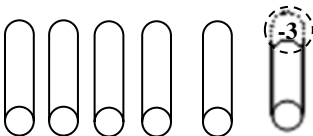
On the shelf



<p>Wednesday special <math>(2x - 7)</math></p>
--

Total Left  
Expression

On the shelf



<p>Freaky Friday special <math>(4x + 5)</math></p>
--

Total Left  
Expression

# Pattern Detectives



Solve each pair of selling problems below. As you solve these pairs, try to find a pattern in the answers.

## Pair One

$$5x - (x - 2)$$

$$5x - (x + 2)$$

## Pair Two

$$4x - (x - 5)$$

$$4x - (x + 5)$$

## Pair Three

$$5x - 2(x - 4)$$

$$5x - 2(x + 4)$$

## Pair Four

$$6x - 3(x - 1)$$

$$6x - 3(x + 1)$$

## Pair Five

$$10x - (6x - 3)$$

$$10x - (6x + 3)$$

Pair Pattern:

Simplify each expression

1a.  $5X + 4 - (3X + 4)$  \_\_\_\_\_

1b.  $5X + 4 - 2(3X + 4)$  \_\_\_\_\_

1c.  $4X - 4 + (3X + 4)$  \_\_\_\_\_

1d.  $9X + 7 - 2(3X + 4)$  \_\_\_\_\_

---

2a.  $6Y - 3 - 2Y + 1$  \_\_\_\_\_

2b.  $6Y - 3 - (2Y + 1)$  \_\_\_\_\_

2c.  $6Y - 3 + 3(2Y - 1)$  \_\_\_\_\_

2d.  $16Y - 3 - 5(2Y - 1)$  \_\_\_\_\_

---

For each problem, decide which of the candy amounts show the same amount of candy.

1.  $2(2x+5)$        $4x + 5$       Same      Different

2.  $3(x - 4)$        $3x - 12$       Same      Different

3.  $2x - 3$        $2(x-3)$       Same      Different

4.  $5(x-7)$        $5x + 35$       Same      Different

SIMPLIFY EACH EXPRESSION

1.  $22X + 4 - (5X + 4)$  \_\_\_\_\_

2.  $22X + 4 - 5X$  \_\_\_\_\_

3.  $22X + 4 - (5X - 4)$  \_\_\_\_\_

4.  $22X + 4 - 2(5X - 4)$  \_\_\_\_\_

5.  $3(22X + 4) - 2(5X + 4)$  \_\_\_\_\_

6.  $32X - 14 - 10X$  \_\_\_\_\_

7.  $32X - 14 - (10X - 12)$  \_\_\_\_\_

8.  $32X - 14 - 2(10X - 12)$  \_\_\_\_\_

9.  $32X - 14 - 4(10X - 12)$  \_\_\_\_\_

Simplify each expression

1. $9X - 14 - 4X - 12$	2. $3X - 14 - 4X - 12$
3. $12x - 18 - 3x + 6$	4. $12s - 18 - (3s + 6)$
5. $10B + 12 - 3(2B + 3)$	6. $10B + 12 - 3(2B - 3)$
7. $-3x + 4 + 3x - 5$	8. $20X - 20Y - 3Y - 21X$
9. $25 - 3B + 4C - 10B - 30$	10. $100 - 3X - 4Y - 3X - 4Y$
11. $10X - 12 \div 2$	12. $(10X - 12) \div 2$