

# Recursive Relationships

Station 1

Mary has been measuring the height of the flowers in her garden on the chart below. She accidentally forgot to record a few measurements! Oops! Each flower continues growing at the same rate. Complete the table with the missing measurements.

Flower	Week 1	Week 2	Week 3	Week 4	Week 8
Roses	4 in.	6 in.		10 in.	18 in.
Tulips	$\frac{1}{2}$ in.		$1\frac{1}{2}$ in.	2 in.	4 in.
Daisies	$1\frac{1}{3}$ in.	$1\frac{2}{3}$ in.	2 in.	$2\frac{1}{3}$ in.	
Sunflowers	3 in.	7 in.	11 in.		31 in.
Lillies	16 cm	31 cm	46 cm	61 cm	

Carl isn't very good at keeping track of the money in all of his bank accounts. He wants to go on vacation at the end of this year. He needs to know if he will have enough money for a trip if he keeps spending money at his current rate.

**If each account increases or decreases by the same amount each month, how much money will be left after 10 months? Complete the table.**

Account	Starting	Month 1	Month 2	Month 3	Month 10
Checking	\$ 1,000	\$ 925	\$ 850	\$ 775	
Savings	\$ 0	\$ 40	\$ 80	\$ 120	
Lottery Tickets	\$ 250	\$ 235	\$ 220	\$ 205	
Coffee Savings	\$ 10	\$ 11	\$ 12	\$ 13	
Money from Mommy	\$ 50	\$ 55	\$ 60	\$ 65	

Carl needs \$1,200 for his trip. Can he afford it? \_\_\_\_\_

# Writing Equations & Inequalities

Station 2

Jake is a big fan of jokes. Instead of answering his math problems with number she writes everything out in verbal phrases. It drives his teacher nuts!

**Help Jake's teacher relieve her headache.  
Translate each verbal phrase into an equation or inequality.**

1. Sally is 12 years old. She is four years older than twice the age of Jan. \_\_\_\_\_
2. Chip needs at least \$100 to get a new bike. He has \$50 and can save an additional \$75 per month. \_\_\_\_\_
3. Lizzy can drink no more than 4 sodas per day. She has already drank half the number of sodas that Sean has. \_\_\_\_\_
4. Andy is a soccer goal scoring machine. To beat the season record, he needs to score at least 100 goals. He already has scored three more than five times the number of goals he scored last season. \_\_\_\_\_

Jake's teacher decided to make him pay for his silliness.  
She gave the entire class a pop quiz!

**You get the take the quiz too!  
Let's see how well you can do!**

1. Two less than the sum of a number and three is at least 45. \_\_\_\_\_
2. Half the quotient of ten and a number is 75. \_\_\_\_\_
3. Twelve more than a number is at least 130. \_\_\_\_\_
4. The difference of seven and a number is at most 4. \_\_\_\_\_
5. Six times the sum of a number and three is no more than 12. \_\_\_\_\_

# Combining Like Terms

Station 4

Lisa loves colors. She doesn't however, love math. She is trying to make her math work more exciting by adding color!

**Simplify each expression by combining like terms.  
Circle like terms in different colors before combining them.**

Example:

$$\begin{array}{ccccccc} 3x & + & 4 & - & 2(x & + & 6) & - & 10 \\ \hline 3x & + & 4 & - & 2x & - & 12 & - & 10 \\ \hline & & & & 1x & - & 18 & & \end{array}$$

1.  $5n - 6m + 3 - 7n + 10m$

4.  $5(s - 4) + 3(7 - s) + s$

2.  $10g + 4r - 6r + 2 - g - 4$

5.  $7(x + 4) - x(2 + 5)$

3.  $-16v + 5x - 12v - 6 - 3x + 2$

6.  $-3(e + 2) - 4(5 - e)$

# PERCENTS

## Station 5

You have to buy birthday gifts for a lot of people soon. You search the internet for great deals and decide to make all of your purchases online.

**Determine the percent change in each price to figure out which online store is having the best sale! Circle the greatest percent discount.**

Item	Online Store #1	Online Store #2
Cell Phone	Was \$125 ~ Is \$90 Percent discount _____	Was \$110 ~ Is \$80 Percent discount _____
BiCYCLE	Was \$240 ~ Is \$195 Percent discount _____	Was \$300 ~ Is \$210 Percent discount _____
Video Game	Was \$55 ~ Is \$45 Percent discount _____	Was \$60 ~ Is \$50 Percent discount _____

**Determine the new price for each product using the old price and the percent discount. Circle the lowest price.**

Item	Online Store #1	Online Store #2
JACKET	\$120 On Sale for 20% off! New Price _____	\$100 On Sale for 10% off! New Price _____
SHOES	\$90 On Sale for 25% off! New Price _____	\$75 On Sale for 5% off! New Price _____
Guitar	\$225 On Sale for 15% off! New Price _____	\$200 On Sale for 10% off! New Price _____