Station 1: Writing Expressions, Equations, and Inequalities

1. **The quotient of a number and 5** _____

2. **The sum of 8 and a number is 14** _____

3. **The product of 9 and a number is no more than 27** _____

4. **14 less than x is 22** _____

5. **8 less than the product of 6 and a number** _____

6. **17 subtracted from a number squared** _____

7. **A number cubed is at least 125** _____

8. **4 times the quantity of a number plus 10 equals 80** _____

9. **The difference of 9*x* and *x* to the fifth power** _____

10. **Half of a number is more than 16** _____

11. **The quotient of twice a number and 5 is 12** _____

12. **16 reduced by triple a number is smaller than 22** _____

Station 2: Writing Equations from Situations

1. **Georgia wants to go to the skating rink with her friends. If the tickets cost $12 and they all spent a total of $72, how many people *p* went skating?** _____

2. **Bill wants to split up his remaining Halloween candy *c* so that his 7 friends get 4 pieces each. How much candy must Bill have?** _____

3. **The temperature is 36 degrees in the morning and rises *d* degrees by the afternoon and falls 7 degrees at night. If the temperature is 42 degrees at night, how much did the temperature rise in the afternoon?** _____

4. **Tricia went to the library with *b* books and returned 5 but took out 2. If Tricia has a total of 8 books out, how many did she start with?** _____

5. **Blaine is going bowling and will need to pay $4 for shoes and then $3 for every game. Write an equation for the situation if *g* represents the games played and *C* represents the total cost.** _____

6. **Bethany bought *s* sweaters for $25.50 each. She had a coupon for $50 off her total. Write an equation to represent the situation if *T* represents the total she will pay.** _____

7. **The perimeter, *P,* of a rectangle is the sum of twice the width, *w,* and double the length, *l*.** _____

8. **The surface area, *S*, of a cube equals the product of 6 and the edge length, *e*, squared.** _____

Station 3: Graphing and Interpreting Inequalities

1.

x is at least 7

_____

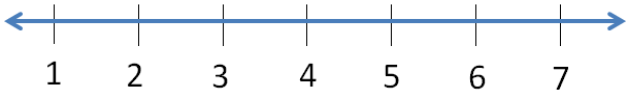
2.

x is no more than 10

_____

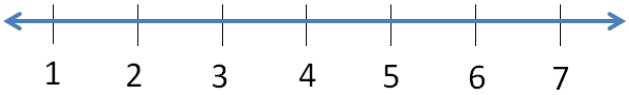
3.

x is smaller than 4

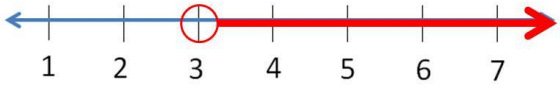


4.

x is at most 6

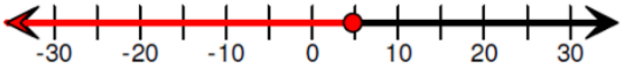


5.



$3 \_\_\_\_\_ x$

6.



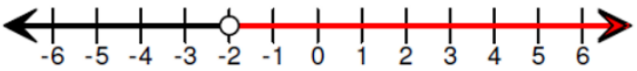
_____

7.

p exceeds 24

$24 \quad -|38| \quad 0 \quad |-38| \quad -(-25)$

8.



$2.01 \quad -2.1 \quad 0 \quad -1\frac{9}{10} \quad -2\frac{1}{100}$

9.

A copier makes more than 6 copies per minute. Graph the Inequality to represent how many copies the copier will make in <u>2 minutes</u>.

10.

Jeremy can run no more than 1.5 miles every 10 minutes. At this pace, Graph the Inequality to represent how many miles Jeremy can run in <u>1 hour</u>.

Station 4: Writing Inequalities from Situations

1. **Jill went the market and bought *a* bags of apples for $6 each. If Mary's total exceeded $42, how many bags of apples could Mary purchase?** _____

2. **Greg collected more than 43 canned goods for his school's food drive. If he got 25 of them from his house and collected the rest from his grandma's, how many canned goods *g* could Greg have collected from his grandma?** _____

3. **Steve rode 4 miles on his bike the first day, *m* miles on the second day and 7 miles on the third day. If on all three days total he rode no less than 20 miles, how many miles could he have ridden on the second day?** _____

4. **Blake had *x* dollars in his wallet, gave 5 dollars to a friend and received 8 from another friend. If Blake now has less than $7, how much money could Blake have started with?** _____

5. **The volume of a cube, represented by *m* to the third power is greater than 125 units squared.** _____

6. **Write the formula for the area of a trapezoid where the area is at most 100 square units.** _____

7. **You go to a carnival and pay $12 for a ticket plus $2 per ride. If you can spend no more than $80. Write an inequality for the situation if *r* represents the rides you ride.** _____

8. **Kayla's cellphone plan has a fixed fee of $45 per month plus $0.10 per text message. Kayla's mom said she would take away the phone if she spent more than $60 on her phone service this month.** _____