Chapter 7

Review

7.1 – Writing Equations

Write the word sentence as an equation.

1) 27 is 3 times a number y.

2) The difference of a number x and 4 is 3.

3) 8 more than a number p is 17.

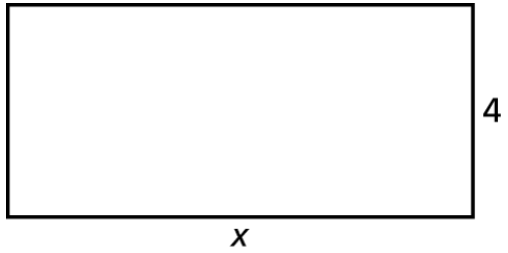
4) Twice of a number q is 14.

5) 12 less than a number j is 29.

7.1 – Writing Equations

6) Write an equation that can be used to find the value of *x*.

Perimeter of rectangle: 32 cm



7.2 – Solving Equations by Add. or Sub.

Tell whether the given value is a solution of the equation.

7) $34 + x = 46;\ x = 12$

8) $y - 9 = 14;\ y = 22$

7.2 – Solving Equations by Add. or Sub.

Solve the equation. Check your solution.

9) $3.5 = m - 2.2$

Check:

10) $p - 24 = 13$

Check:

7.2 – Solving Equations by Add. or Sub.

Solve the equation. Check your solution.

11) $b + 19 = 57$

Check:

12) $\frac{2}{5} + m = \frac{5}{6}$

Check:

7.3 – Solving Equations by Mult. or Div.

Solve the equation. Check your solution.

13) $\frac{p}{5} = 17$

Check:

14) $7k = 89$

Check:

7.3 – Solving Equations by Mult. or Div.

Solve the equation. Check your solution.

15) $11 = \frac{m}{12}$

Check:

16) $5 \bullet x = 12$

Check:

7.1-7.3 – Review

17) In the heavyweight class of professional wrestling, the junior weight limit is 190 pounds. This is 15 pounds heavier than the light heavyweight limit. Write and solve an equation to find the weight limit of the light heavyweight class. Check your solution.

7.1-7.3 – Review

18) You earn $5 for every friendship bracelet you sell. Write and solve an equation to find the number of bracelets you have to sell to earn $85. Check your solution.

Inequalities

An inequality is a mathematical sentence that _____ _____.

To write an inequality, look for the following phrases to determine where to place the inequality symbol.

Inequality Symbols				
Symbol	**<**	**>**	**≤**	**≥**
Key Phrases	• is less than • is fewer than	• is greater than • is more than	• is less than or equal to • is at most • is no more than	• is greater than or equal to • is at least • is no less than

Writing Inequalities

Write the following as an inequality.

1) A number m is greater than or equal to -11.

2) A number r is less than 6.

3) A number d is at most -19.

4) A number w is fewer than 43.

5) A number u is no less than -27.

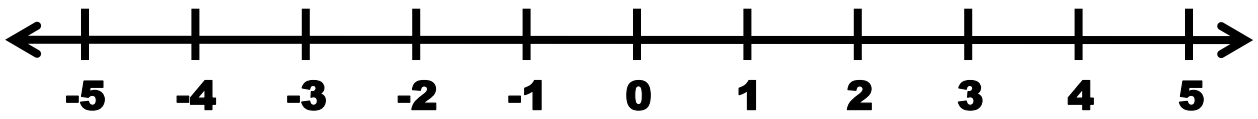
6) A number z is at least 7.

Solving Inequalities

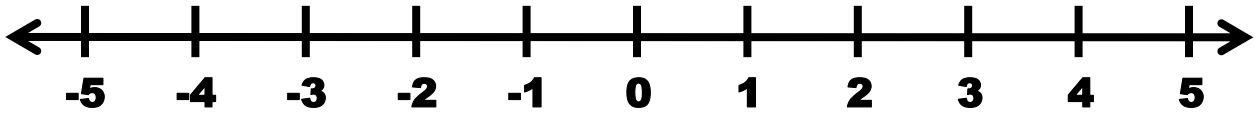
Solving inequalities is just like solving regular equations…

Solve and graph the following:

1) $t - 5 < -2$



2) $r - 8 \geq -5$

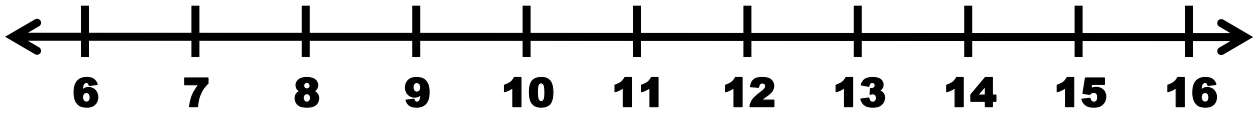


Solving Inequalities

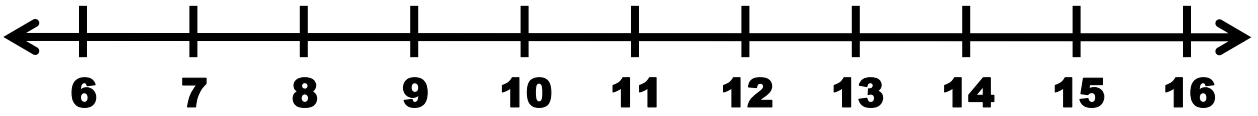
Solving inequalities is just like solving regular equations…

Solve and graph the following:

3) $y - 4 \geq 7$

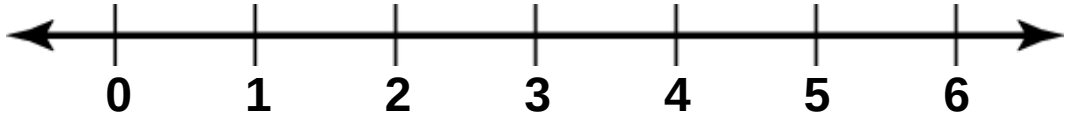


4) $25 \geq w + 16$

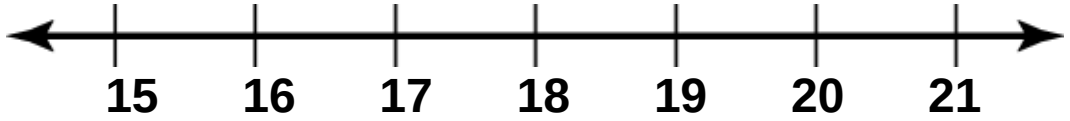


PRACTICE **Solve and graph the following:**

5) $5x > 15$

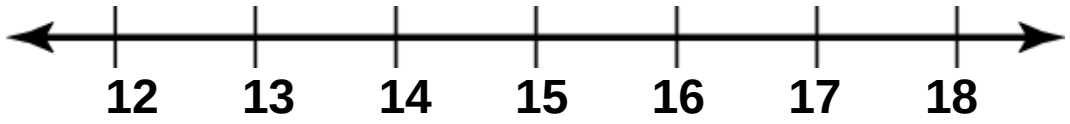


6) $9 > \frac{n}{2}$



PRACTICE **Solve and graph the following:**

13) $\frac{1}{3}x \leq 5$



Word Problems

Write the word sentence as an inequality. Then solve the inequality.

14) Five times a number is less than -25.

16) The quotient of a number and -6 at least -3.