

Ratios

Write the ratio. Ex: ♥♥♥♥♥♥♦♦ hearts: diamonds 6 : 2 or 3 : 1

<p>1. ○○△△△△</p> <p>Triangle to Circle <b>4:2 2:1</b></p>	<p>2. 😊😊😞😊😊😊😊😞😊😊</p> <p>Happy to Sad _____ : _____</p>
<p>3. 12 girls and 10 boys</p> <p>Girls to the Total Class <b>12:22 6:11</b></p>	<p>4. 16 correct out of 20 on a test</p> <p># Incorrect to # Correct _____ : _____</p>

Unit Rates

Write a unit rate for the situation. How much for 1?

<p>5. \$54.00 for 2 tickets</p> <p><b>\$27/1</b></p>	<p>6. 155 miles in 5 hours</p>
--	--------------------------------

Percentages

Percentage= Part/Whole X 100

<p>7. Dante got 2 problems wrong on his 10 item test. What was his grade as a percentage?</p> <p><b><math>8/10 = .8 = 80\%</math></b></p>	<p>8. The basketball team won 18 games and lost 6. What is their percentage of games <b>lost</b>?</p>
<p>9. 40 students prefer icecream. 10 prefer frozen yogurt. What percent like frozen yogurt best?</p> <p><b>Total=40+10=50      <math>10/50 = 20/100 = 20\%</math></b></p>	<p>10. 40 students prefer icecream. 10 prefer frozen yogurt. What percent like ice cream best?</p>

Expression: Evaluate the expression when  $a = 6$  and  $b = 8$ .

11. $4 + a$  $4 + 6 = 10$	12. $ab - 6$
13. $a + (b + 5)$  $6 + (8 + 5) = 19$	14. $\frac{a+b}{2}$

Simplify each expression: Combine like terms.

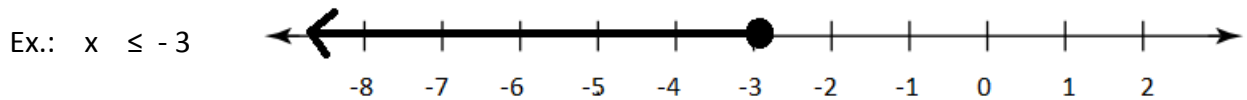
15. $3.1 + (8.6 + m)$  $11.7 + m$	16. $3(15w)$
17. $s + 3s + 4s$ $1s + 3s + 4s = 8s$	18. $3(2 + 5r) + 11$

Equations: Solve each equation.

19. $7 + b = 15$ $b = 8$	20. $v - 6 = 16$
21. $3b = 45$ $b = 15$	22. $\frac{m}{6} = 30$

### Inequalities

- Use  $\bullet$  for  $=$ ,  $\geq$ , and  $\leq$ . / Use  $\circ$  for  $>$  and  $<$ .
- Arrow points in the same direction as the greater than or less than symbol



23. $x \geq -4$ 	24. $x < 6$ 
25. $x < 7$ 	26. $x \leq -2$ 

## Order of Operations

- Parenthesis
- Exponents
- Multiplication or Division
- Addition or Subtraction

<p>27. <math>12 \div 3 + 8 \div 4 =</math>  <math>4 + 2 = 6</math></p>	<p>28. <math>(21 \div 7 + 4) \cdot 10 =</math></p>
<p>29. <math>32 \div 16 \cdot 9 \div 3 =</math>  <math>2 \cdot 9 \div 3</math>  <math>18 \div 3</math>  <math>6</math></p>	<p>30. <math>15 - 8 \cdot 2 - 6 =</math></p>

## Fraction Computation

- To add and subtract fractions, first find common denominators. Then add or subtract numerators and keep the denominator.
- To multiply fractions, change all mixed and whole numbers to improper fractions then multiply numerators and multiply denominators. Cross cancel (factor) if possible.
- To divide fractions, change all mixed and whole numbers to improper fractions and then “Keep-Change-Flip.”
- Always simplify your answer.

<p>31.  <math>\frac{7}{8} - \frac{1}{4} = \frac{7}{8} - \frac{2}{8} = \frac{5}{8}</math></p>	<p>32..  <math>3\frac{1}{5} + 5\frac{2}{3} =</math></p>
<p>33.  <math>1\frac{1}{8} \cdot 1\frac{1}{3} = \frac{9}{8} \cdot \frac{4}{3} = \frac{36}{24} = 1\frac{1}{2}</math></p>	<p>34.  <math>2\frac{2}{5} \cdot \frac{1}{10} =</math></p>
<p>35.  <math>2\frac{1}{2} \div \frac{3}{4} = \frac{5}{2} \div \frac{3}{4} = \frac{5}{2} \cdot \frac{4}{3} = \frac{20}{6} = 3\frac{1}{3}</math></p>	<p>36.  <math>\frac{1}{4} \div \frac{2}{3}</math></p>

### Geometry- Two Dimensional Figures

Find the area and perimeter/circumference of the figures below.

Rectangle:

$$A = l \cdot w$$

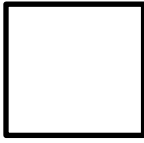
Triangle:

$$A = \frac{1}{2} b \cdot h$$

Trapezoid:

$$A = \frac{1}{2} (a + b) \cdot h$$

37.



8 yd.

$$A = 8 \cdot 8 = 64 \text{ yd}^2$$

$$P = 8 + 8 + 8 + 8 = 32 \text{ yd.}$$

38.

4 cm

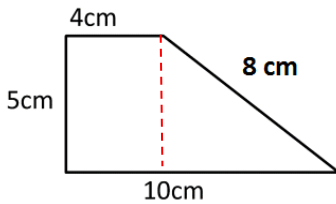


6 cm

$$A = \underline{\hspace{2cm}}$$

$$P = \underline{\hspace{2cm}}$$

39.



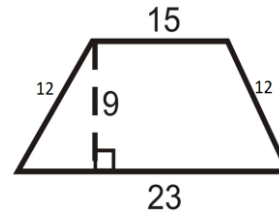
$$A = 4 \cdot 5 = 20$$

$$\frac{1}{2} \cdot 6 \cdot 5 = 15$$

$$20 + 15 = 35 \text{ cm}^2$$

$$P = 4 + 8 + 10 + 5 = 27 \text{ cm}$$

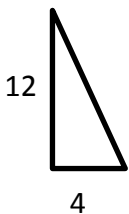
40.



$$A = \underline{\hspace{2cm}}$$

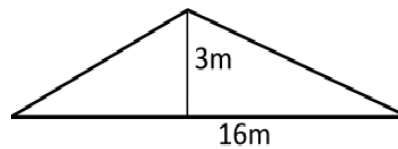
$$P = \underline{\hspace{2cm}}$$

41. Triangle with height of 12 in. and base of 4 in.



$$A = \frac{1}{2} \cdot 4 \cdot 12 = 24 \text{ in}^2$$

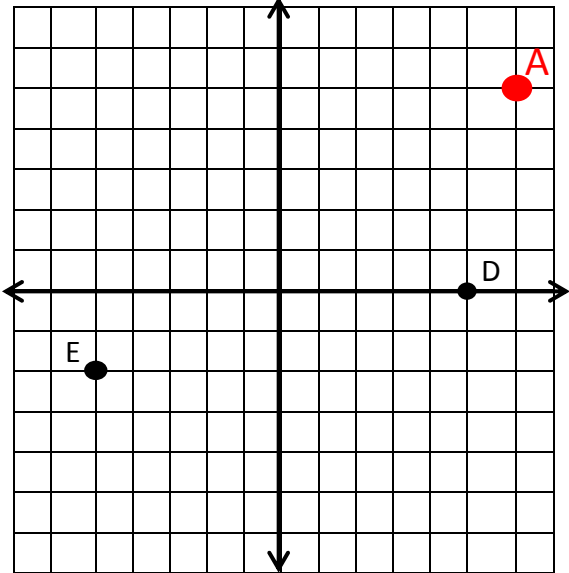
42.



$$A = \underline{\hspace{2cm}}$$

Coordinate Graphing (x,y)  $\longrightarrow$  (across , up/down)

43-46. Plot the following points on the graph. Label your points. 69-70 Find the coordinates.



43. A(6,5)	44. C(0, 4)
45. D ( 5,0 )	46. E (       )

### Data Analysis

- Mean- Add up the values and divide by the number of values
- Median-the middle value in an ordered set of values
- Mode-the value that occurs most often
- Range-the difference between the highest and lowest values in a set of data

**12, 20, 24, 12, 18, 10, 12**

47. Mean- Total-108  $108 \div 7 \approx 15.43$	48. Median-
49. Mode- Most often $\longrightarrow$ 12	50. Range-

**Now that you have finished, you know which skills you need to practice to be ready for Pre-Algebra. Use the resources listed on the cover letter to find other ways to review these skills on your own.**