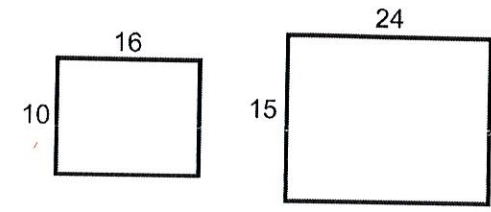
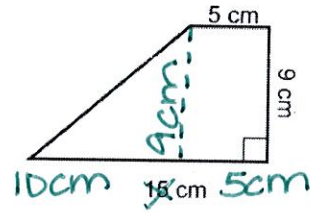
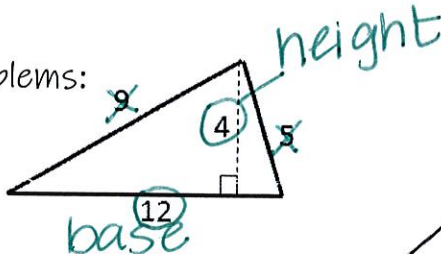


Practice Problems:



1. Find the area:

2. Calculate:

- $26.5 + 19.18 + 12 = ?$
- $15 - 2.5 = ?$
- $10.7 \times 8 = ?$
- $3.8 \div 0.2 = ?$
- $3485 \div 205 = ?$
- $9 \div 7$

3. Write an expression that matches:

- "Four friends share 9 pieces of candy"
- "7 fewer than 12"
- "9 years older than Kelly" (use a variable!)
- " $\frac{1}{2}$ of 3 yards"
- "The total price of a \$1.25 soda and a \$0.75 candy"

4. Determine if the expressions are equivalent.

$4x + 3$ $2x + 3 - 2x$

5. Evaluate the expressions above if $x=3$.

6. Simplify:

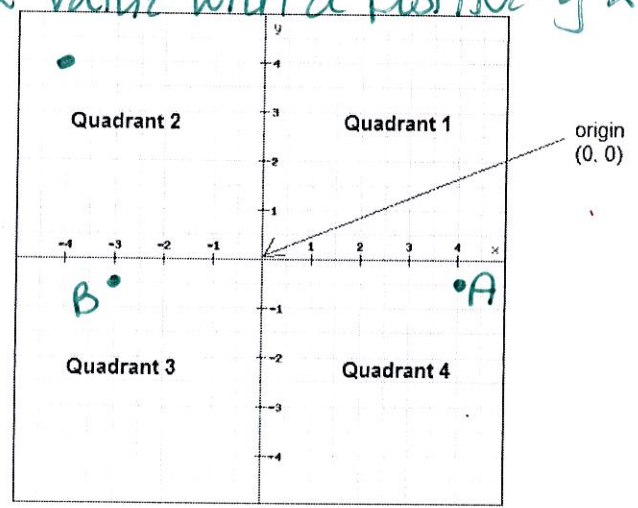
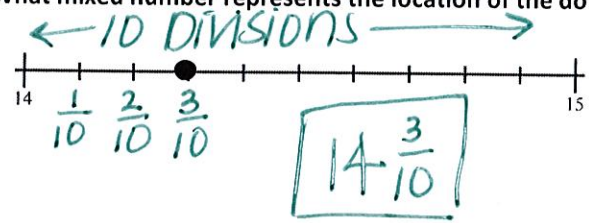
$4x + 9 - 2z + x - 3$
 $4 + 5(6 - 1)$
 $2x^2 + 5x^2 - 3x$

7. Plot the points A(4,-1) and B(-3,-1) on the coordinate plane below.

8. What is the distance between point A and point B (from problem 7)? $3 + 4 = 7$

9. Give the coordinates of any point in Quadrant 2. $(-4, 4)$
 ★ Any negative x value with a positive y ★

10. What mixed number represents the location of the dot below?



11. Organize the five values below from least to greatest.

$\frac{1}{2}, 2\frac{1}{3}, -7, 0, 1\frac{2}{3}$ $-7, 0, \frac{1}{2}, 1\frac{2}{3}, 2\frac{1}{3}$

12. If Sam can run 2 miles in 12 minutes. How many miles could he run in 5 minutes (assuming the rate remained constant)?

$\frac{2\text{mi}}{12\text{min}} = \frac{1\text{mi}}{6\text{min}} \times \frac{5}{5} = \frac{5\text{mi}}{30\text{min}}$ It will take 30min.

13. If it takes 3 scoops of ice cream for 2 small milkshakes, how many milkshakes can you make with 12 scoops of ice cream?

$(17/8) \dots (12/4) \dots 12/4 = 3$

$$\textcircled{1} \text{ Area} = \frac{1}{2}bh$$

$$A = \frac{1}{2}(12)(4)$$

$$A = 24u^2$$

$$A = \frac{1}{2}bh$$

$$A = \frac{1}{2}(10)(9)$$

$$A = 45u^2$$

$$A = bh$$

$$A = (5)(9)$$

$$A = 45u^2$$

$$A = dh$$

$$A = (11e)(10)$$

$$A = 11e0u^2$$

$$\text{Total Area} = 90u^2$$

$$A = (24)(15)$$

$$A = 360u^2$$

$$\textcircled{2} \begin{array}{r} 26.50 \\ + 19.18 \\ \hline 12.00 \\ \hline 57.68 \end{array}$$

$$\begin{array}{r} 15.10 \\ - 2.5 \\ \hline 12.5 \end{array}$$

$$\begin{array}{r} 18.7 \\ \times 8 \\ \hline 85.6 \end{array}$$

$$\begin{array}{r} 19 \\ 0.2 \overline{) 3.8} \\ \underline{-2} \\ 18 \\ \underline{-18} \\ 0 \end{array}$$

	20	4	
10	200	40	200
5	100	20	100
			60
			360

$$\begin{array}{r} 0017 \\ 205 \overline{) 3485} \\ \underline{-205} \\ 1435 \\ \underline{-1435} \\ 0 \end{array}$$

$$9 \div 7 = \frac{9}{7} = 1\frac{2}{7}$$

$$\textcircled{4} \begin{array}{l} 4x+3 \\ 4(1)+3 \\ 4+3 \\ 7 \end{array}$$

$$\begin{array}{l} x=1 \\ 2x+3-2x \\ 2(1)+3-2(1) \\ 2+3-2 \\ 3 \end{array}$$

$$\textcircled{13} \begin{array}{l} \times 4 \\ 3 \text{ scoops} = 12 \text{ sc.} \\ 2 \text{ milks} = 8 \text{ ms} \\ \times 4 \\ 8 \text{ milkshakes} \end{array}$$

$$\textcircled{3} \begin{array}{l} 9 \div 4 \\ 12-7 \\ 9+K \text{ (K=Kelly)} \\ \frac{1}{2} \cdot \frac{3}{1} \\ 1.25 + 0.75 \end{array}$$

$$\textcircled{5} \begin{array}{l} 4(3)+3 \\ 12+3 \\ 15 \end{array}$$

$$\begin{array}{l} 2(3)+3-2(3) \\ 6+3-6 \\ 3 \end{array}$$

They are not equivalent.

$$\textcircled{6} 4x + 9 - 2z + x - 3$$

$$5x + 6 - 2z$$

$$\begin{array}{l} 4+5(6-1) \\ 4+5(5) \\ 4+25 \\ 29 \end{array}$$

$$2x^2 + 5x^2 - 3x$$

$$7x^2 - 3x$$

789101112 on front

Unit 2 Study Guide

Chapters 3-6

Skills being tested:

- Adding and Subtracting decimals.** Remember to: Line up Decimals!
- Multiplication of Decimals:** Remember that: Decimals can be "moved out of the way."
- Division (with and without decimals).** Remember to: Use strategies that help you such as a creating a diagram, writing as multiplication (if you flip) or using long division.
- Write expressions.** Remember that: Expressions are Number Sentences and that words can be translated into math symbols. For example: fewer might indicate subtraction and total might indicate addition.
- Evaluating expressions.** Remember that: Evaluating is like "finding the value" - what does it equal? We often need to replace variables with a number to solve these problems.
- Determine equivalent expressions:** Remember that: You can substitute numbers for variables or combine like terms to decide if two expressions have the same value.
- Combine like terms.** Remember that: Terms can only be combined if their variables match!
- Find the area of rectangles and triangles.** Remember that: Area can be found by counting square units inside the shape or by using a formula. The formula for a triangle is: $\frac{1}{2}b \times h$
- Find the area of complex shapes:** Remember to: Add lines so that you create rectangles or triangles, then add the areas when you're done!
- Using ratios to solve problems.** Remember that: The GIANT ONE can be a very useful strategy!
- Organize numbers on a number line.** Remember that: Negative (smaller) numbers are always to the left on a number line.
- Understanding points on a coordinate plane:** Remember that: Ordered pairs (x,y) always give the left-to-right direction first! Distance can be found by counting units or using absolute value.

$$4x + 9 - 2z + x - 3$$

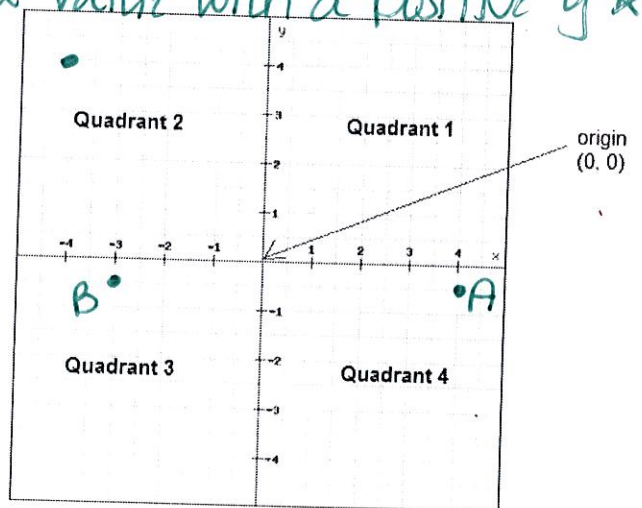
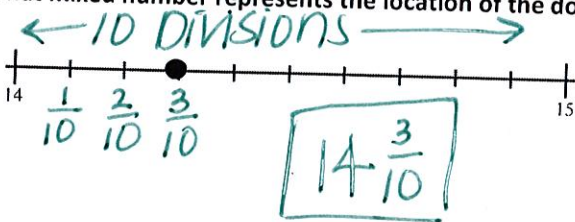
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13. If it takes 3 scoops of ice cream for 2 small milkshakes, how many milkshakes can you make with 12 scoops of ice cream?

$$\frac{3}{2} = \frac{12}{x} \quad x = \frac{12 \times 2}{3} = 8$$