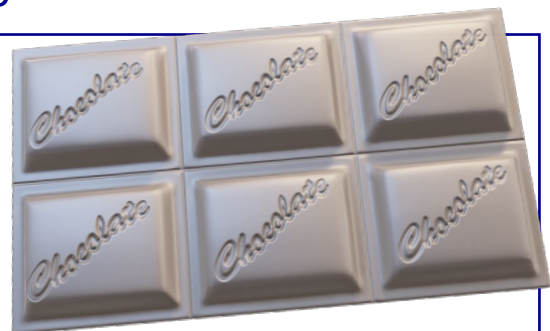
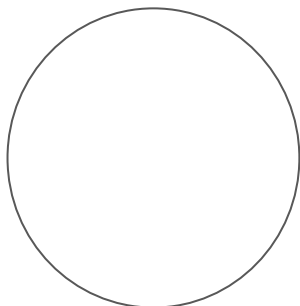


Warmup: Complete before watching the video

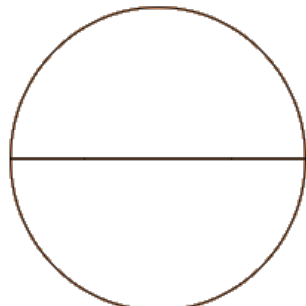
Mrs. Wendy has one chocolate candy bar. Two students arrived early for class, so she decided to share the candy bar with them. How much of the candy bar does each person get if she gives an equal amount to each person?

**I. Fractions: Amounts Less Than 1**

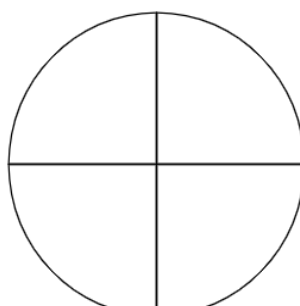
The circle represents the number 1. Color the circle Red.



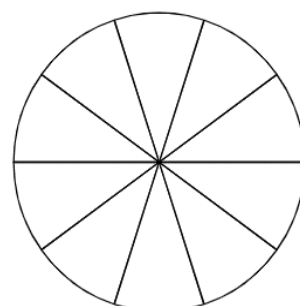
The circle is divided into halves. Color one half of the circle yellow.



The circle is divided into fourths. Color one fourth of the circle green.



The circle is divided into tenths. Color one tenth of the circle purple.



The rectangle is divided into fifths. Color five fifths of the rectangle blue.



A group of six circles is in the black rectangle. Color five sixths of the circles orange.



Numerator **Denominator**

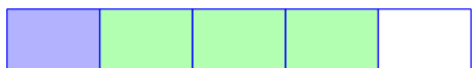
When the numerator equals the denominator the fraction equals 1.

$$\frac{8}{8} = 1 \quad \frac{3}{3} = 1 \quad \frac{5}{5} = 1$$

Numerator: The number above the fraction bar. The numerator tells how many of the parts are selected.

Denominator: The number below the fraction bar. The denominator refers to how many equal parts are in the whole.

II. Addition of Fractions



Enter the answer as a fraction.

Calculate $\frac{1}{5} + \frac{3}{5} = \frac{\boxed{}}{\boxed{}}$

7. $\frac{3}{4} + \frac{1}{4} = \text{---}$

8. $\text{---} + \text{---} = \text{---}$

9. $\text{---} + \text{---} = \text{---}$

10. $\text{---} + \text{---} = \text{---}$

Adding Fractions with the same denominator:

Calculate:
 $\frac{2}{19} + \frac{9}{19} = \frac{\boxed{}}{\boxed{}}$

11. $\text{---} + \text{---} = \text{---}$

12. $\text{---} + \text{---} = \text{---}$

III. Subtraction with Fractions



Enter the answer as a fraction.

Calculate $\frac{7}{8} - \frac{5}{8} = \frac{\boxed{}}{\boxed{}}$

13. $\frac{4}{4} - \frac{2}{4} = \text{---}$

14. $\text{---} - \text{---} = \text{---}$

15. $\text{---} - \text{---} = \text{---}$

16. $\text{---} - \text{---} = \text{---}$

Subtracting Fractions with the same denominator:

Calculate:

$\frac{13}{18} - \frac{9}{18} = \frac{\boxed{}}{\boxed{}}$

17. $\text{---} - \text{---} = \text{---}$

18. $\text{---} - \text{---} = \text{---}$

IV. Fractions on a number line

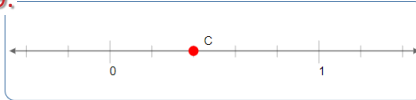


What fraction is at point A?



What fraction is at point B?

19.



What fraction is at point C?

Add point D on the number line at $\frac{1}{3}$



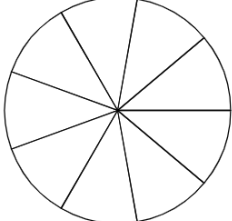
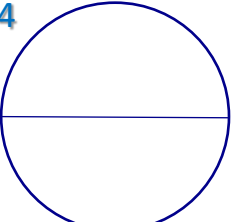
20. Add point E on the number line at $\frac{3}{4}$



21. Add point F on the number line at $\frac{5}{7}$



V. Practice

22				23			
24				25			
26		27		28			
29				30			
31				32			

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Use the remaining space for answering questions or writing notes.

Success Check # _____

Name:

Date:

Warmup:

1. The order of operations:

2. Evaluate the Expression
when $a=3$, $b=12$, and $c=5$

$$2(b \div a) + c$$

3. Evaluate $\frac{p}{3} + 7$
When $p = 27$

I. Evaluating Algebraic Expressions after Substitution.

Evaluate: $(a \div b \times 2)^2 + 6$ when $a=36$
and $b = 6$

4. The first step to
simplify an algebraic
expression is to
_____ the
values of the variables.

Evaluate $(b + c)^2 - a^2$ when $a=2$,
 $b=3$ and $c=4$

Evaluate $a(b + c) + b(a - c)$ when
 $a=5$, $b=3$ and $c=1$

5. Evaluate the expression if a=5 and b=3. $(a + b \times 2)^2 + 4$

6. Evaluate $\frac{b^2 - a^2}{b - a}$ when a=5 and b=8

II. Fill in a table

Variable: A letter used to represent a number not yet assigned.

The algebraic expression will have a different value based on the value of the variable. A table can show the relationship between the value of the variable and the value of the algebraic expression.

x	$3(x + 5)$	
0		
1		
2		
3		

7. Fill in the table for $3x+10$

x	$3x+10$	
0	$3(0)+10 =$	
1	$3(1)+10 =$	
2	$3(2)+10 =$	
3	$3(3)+10 =$	
4	$3(4)+10 =$	

8. Fill in the table for $8x + 2$

x	$8x+2$	
0	$8(0)+2 =$	
1	$8(1)+2 =$	
2	$8(2)+2 =$	
3	$8(3)+2 =$	
4	$8(4)+2 =$	

III. Practice

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Success Check # _____

Name:

Date:

Warmup: Show each step on paper, then check your answer on the website.

1. $2 + 3 + 8 + 7 =$

2. $2 + 8 + 3 + 7 =$

Equivalent Expressions:

3. Multiply: $5 \times 3 \times 4 \times 2 =$

4. Multiply: $5 \times 2 \times 3 \times 4 =$

5. True or False: $10 \div 2 = 2 \div 10$

6. True or False: $7 - 3 = 3 - 7$

7. Calculate $5 + 0 =$

8. Calculate $12 \cdot 1 =$

9. Calculate $8 \cdot 0 =$

10. $y + \underline{\hspace{2cm}} = y$

I. Commutative Property of Addition and Multiplication.

Commutative Property of Addition:

the order in which numbers are added does not change their sum.



$3 + 6 = \underline{\hspace{1cm}} + 3$

$\underline{\hspace{1cm}} + 4 = 4 + b$

Commutative Property of Multiplication:

the order in which numbers are multiplied does not change their product.



$7 \cdot 3 = \underline{\hspace{1cm}} \cdot 7$

$\underline{\hspace{1cm}} \cdot 8 = 8 \cdot b$

11. $2 + 4 = 4 + \underline{\hspace{2cm}}$

12. $\underline{\hspace{2cm}} \cdot 6 = 6 \cdot 5$

13. $x + \underline{\hspace{1cm}} = y + x$

14. $x \cdot y = y \cdot x$

II. Associative Property of Addition and Multiplication.

Associative Property of

Addition: the grouping of the addends does not change their sum.



Associative Property of

Multiplication: the grouping of the factors does not change their product.

$$(2 + 4) + 6 = \underline{\hspace{2cm}} + (4 + 6)$$

$$(3 \cdot 5) \cdot 2 = 3 \cdot (5 \cdot 2) =$$

$$18. (c+9)+15$$

$$(y \cdot 2) \cdot 3 = y \cdot (2 \cdot 3) =$$

$$(a + 5) + 6 =$$

$$16. (5 + \underline{\hspace{2cm}}) + 2 = 5 + (8 + 2)$$

$$17. (6 \cdot 4) \cdot \underline{\hspace{2cm}} = 6 \cdot (4 \cdot 5)$$

III. Identity Properties of Addition and Multiplication.

Identity Property of

Addition: The sum of an addend and zero is the addend.



Identity Property of

Multiplication: The product of a factor and one is the factor.

$$5+0 =$$

$$\underline{\hspace{2cm}} + 9 = 9$$

$$4(1) =$$

$$(\underline{\hspace{2cm}})x = x$$

$$a + \underline{\hspace{2cm}} = a$$

IV. Multiplicative Property of Zero.

Multiplicative Property of Zero:

The product of a factor and zero is zero.

$$3(0) =$$

$$(\underline{\hspace{2cm}})x = 0$$

$$a(\underline{\hspace{2cm}}) = 0$$

V. Mixed Review of Properties

29

Commutative Property of Addition: $4 + 5 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

Associative Property of Addition: $(4 + 5) + 6 = \underline{\hspace{2cm}} + (\underline{\hspace{2cm}} + \underline{\hspace{2cm}})$

Identity Property of Addition: $4 + \underline{\hspace{2cm}} = 4$

Multiplicative Property of Zero: $4 \times \underline{\hspace{2cm}} = 0$

Commutative Property of Multiplication: $4 \times 5 = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$

Associative Property of Multiplication: $(4 \times 5) \times 6 = \underline{\hspace{2cm}} \times (\underline{\hspace{2cm}} \times \underline{\hspace{2cm}})$

Identity Property of Multiplication: $4 \times \underline{\hspace{2cm}} = 4$

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VI. Practice

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Success Check # _____

Name:

Date:

Warmup

1 The order -4, 3, 0 from least to greatest:

_____, _____, _____

2 Write the values:

A: _____ B: _____ C: _____ D: _____

3 No work needed on paper.

4 No work needed on paper.

5 Write the correct symbol:

_____ equal

_____ less than

_____ greater than

6 $288 \div 2 - 4(48 \div 4) + 9$

I. Introduction to Geometry

point:

A

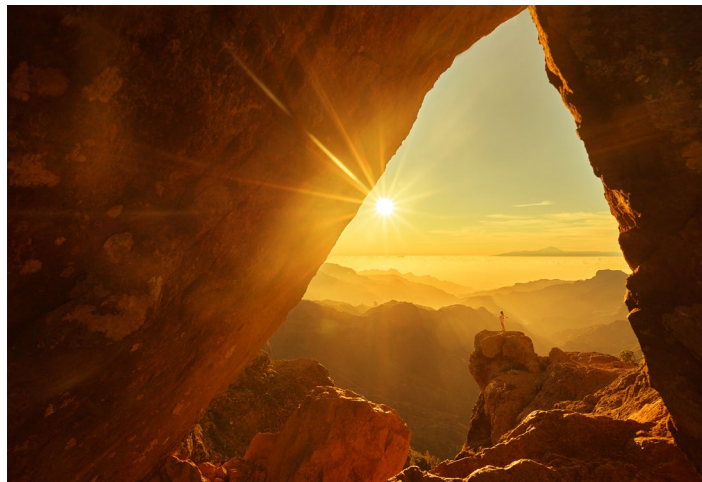

line:



ray:

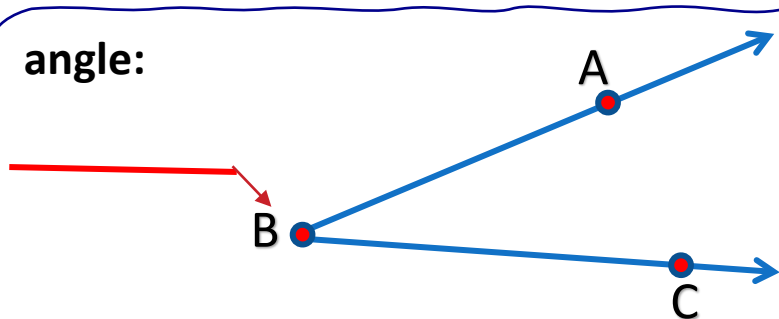


line segment or segment:

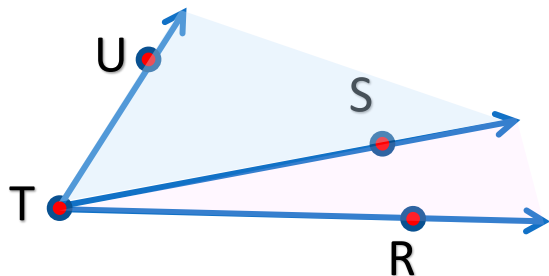


II. Classifying Angles

angle:



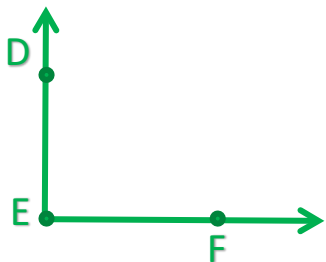
The vertex of the angle is the name of the angle, but if more than one angle is at the vertex, use points on each ray in the name.



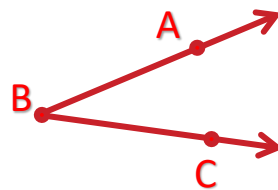
Name all three angles with vertex T

Angles are measured in _____.

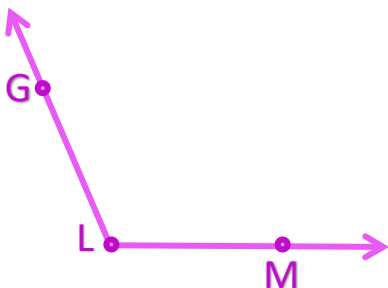
Right Angles



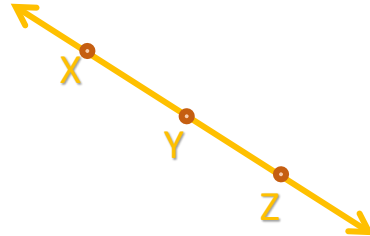
Acute Angles



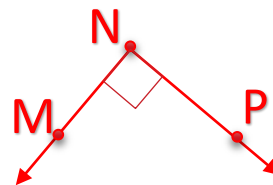
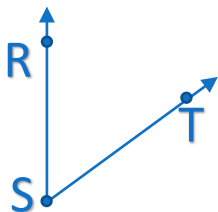
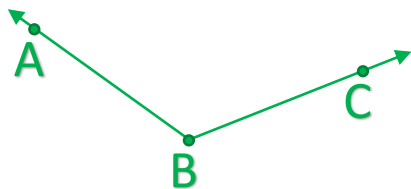
Obtuse Angles



Straight Angles



Write the name of each angle and classify it as acute, right, obtuse or straight.



15. What is the classification of an angle measuring exactly 90 degrees?

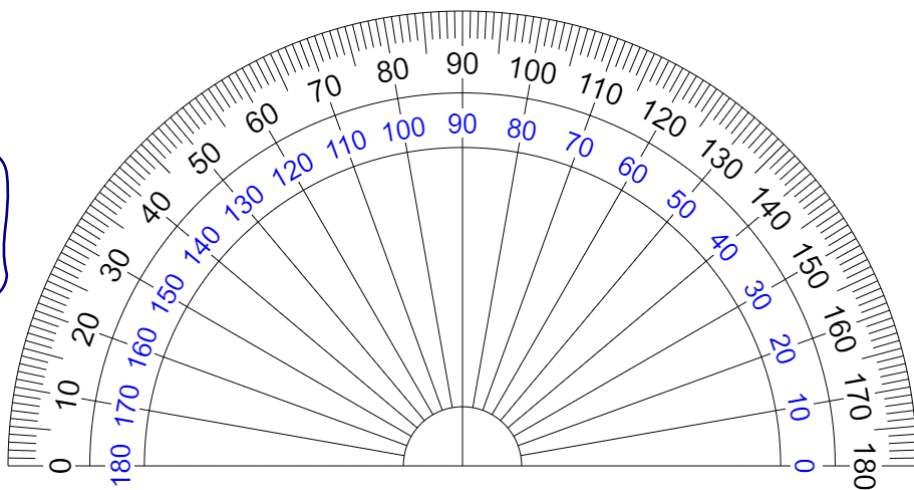
16. What is the classification of an angle measuring more than 90 degrees and less than 180 degrees?

17. What is the classification of an angle measuring less than 90 degrees?

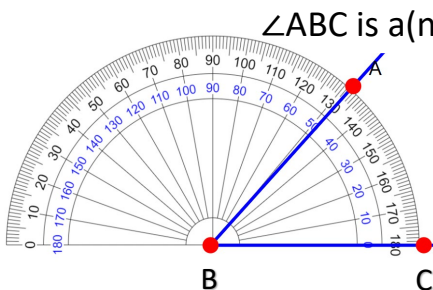
18. What is the classification of an angle measuring exactly 180 degrees?

III. Measuring Angles

Protractor: The tool used to measure angles



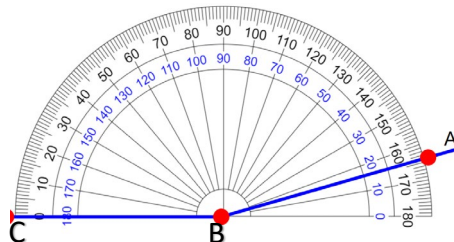
19. Classify, then measure $\angle ABC$



$\angle ABC$ is a(n) _____ angle

$\angle ABC =$ _____ $^{\circ}$

20. Classify, then measure $\angle ABC$



$\angle ABC$ is a(n) _____ angle

$\angle ABC =$ _____ $^{\circ}$

Explore

Plan

Solve

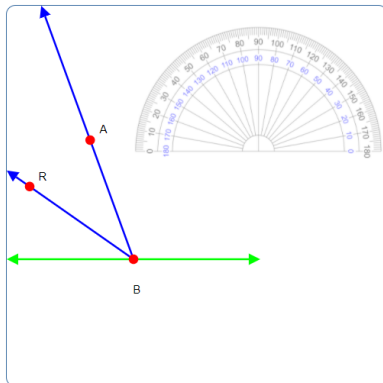
Check

To measure an angle:

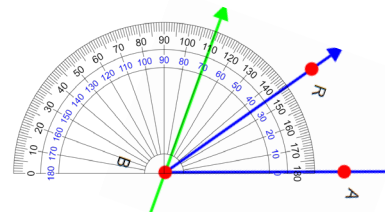
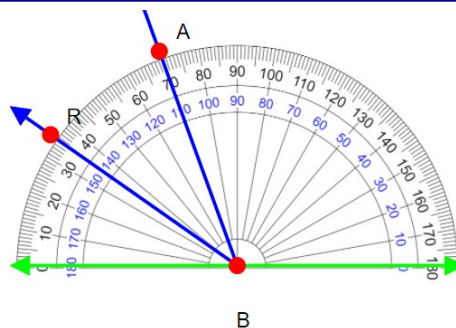
1. Determine if the angle is acute, or obtuse
2. Line up the protractor on one ray of the angle
3. Read the degree measurement.
 - If the angle is acute the measurement must be less than 90
 - If the angle is obtuse, the measure must be between 90 and 180
4. Does your answer make sense?

24. Classify, then measure $\angle ABR$

(Drag the protractor to the angle to measure it.)



$\angle ABC$ is a(n) , it measures degrees.



IV. Compare and Order Decimals

Compare Decimal Numbers: To determine the larger number start at the largest place value. Compare each place value, when the digits are different, the number with the greatest value is the larger number.

Compare using $<$, $>$, or $=$

125.003 and 125.3

thousands	hundreds	tens	ones	. (and)	tenths	hundredths	thousandths	Ten-thousandths

Ending or Terminal Zeros do not change the value of the number.

When necessary, add terminal zeros to a decimal number.

Compare 13.45 and 13.54

Compare 6903.002 and 6930.002

26. Enter the numbers 10.32 and 10.3 to make a true statement.

_____ < _____

27. Enter the numbers 598.63 and 598.54 to make a true statement.

_____ < _____

28. Enter the sign to make 0.4600 ____ 0.46 a true statement.

29. Enter the sign to make 0.77 ____ 0.83 a true statement.

V. Practice

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Success Check # _____

Name:

Date:

Warmup

$$\begin{array}{r} 1. \quad s \\ + 5.01 \\ \hline 8.26 \end{array}$$

$$\begin{array}{r} 2. \quad t \\ - 4.12 \\ \hline 5.25 \end{array}$$

$$\begin{array}{r} 3. \quad 7.01 \\ + p \\ \hline 9.51 \end{array}$$

I. Solving Addition Equations

Equation: A mathematical sentence expressing that two quantities are of equal value.

The bears are not equal in weight.



$$\begin{array}{r} s + 5 \qquad 8 \\ \hline \triangle = \end{array}$$

$$\begin{array}{r} s \\ \hline \triangle = \end{array}$$

$$7 + p = 9$$

To Solve Addition Equations:

1. Write the equation
2. To isolate the variable, subtract the same amount on both sides.
3. Simplify.
4. Check your answer.

5.

$$c + 8 = 15 \quad \text{Check}$$

6.

$$16 + y = 21 \quad \text{Check}$$

II. Solving Subtraction Equations

$$t - 3 \qquad 2$$



$$t - 10 = 10$$

$$t$$



To Solve Subtraction Equations:

1. Write the equation
2. To isolate the variable, add the same amount on both sides.
3. Simplify.
4. Check your answer.



7.

$$z - 7 = 9 \quad \text{Check}$$

8.

$$m - 12 = 8 \quad \text{Check}$$

III. Solving Addition and Subtraction Equations with Decimals

$$a + 18.54 = 36.45 \quad \text{Check}$$

To solve addition and subtraction equation with decimals follow the same rules as solving addition and subtraction equations.

9.

$$6.3 + c = 23.55 \quad \text{Check}$$

10.

$$t - 15.75 = 9.28 \quad \text{Check}$$

IV. Word Problems with Addition and Subtraction Equations

Anna is 5 inches taller than Barbara. Anna is 54 inches. How tall is Barbara?

Sam is 7 years younger than Tim. If Sam is 9 years old, how old is Tim?

11. Rebecca is 9 inches shorter than Ashley. How tall is Ashley if Rebecca is 43 inches?

12. John was given a raise of 2 dollars per hour. How much was John earning before the raise if he is now earning 20 dollars per hour?

V. Practice

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Success Check # _____

Name:

Date:

I. Warmup

1. What are the 4-steps to problem solving?

2. Sam can fold 15 more letters than John each hour. How many letters did John fold in 1 hour if Sam folded 155 letters?

3. $x^3 = 64$

What is x?

4. $x^2 = 100$

What is x?

5.

$x + 0.2 = 6.35$ *Check*

II. Guess and Check

Solve for x:

$$\frac{\frac{4}{2x}}{\frac{4}{x^2(x+4)}} = 0$$

6. Consecutive numbers are integers that are right after each other. Find three consecutive integers such that the sum of the first two integers is 3 greater than the third. Use the guess and check problem solving method.

Guess and Check Problem Solving:

To use the guess and check method adjust your guesses based on the results. Always check your answer!

8. On our farm we have 55 animals. There are 2 times as many cattle as goats, and 5 times as many chickens as cattle. We also have 1 dog, 1 cat, and 1 pig. How many of each animal do we have?

9. Twice a number, increased by five is thirteen. What is the number?
(Hint: solve for x : $2x + 5 = 13$)

7. I am four years younger than my sister and she is two years older than 50, how old am I?

10. Use the numbers 1,2,3,4,5,6,7,8, and 9 each once to make the sum of each row, each column, and each diagonal equal to 15.

Magic Square		
2		6
	5	
4		8

V. Practice

11

12

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19

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Success Check # _____

Name:

Date:

Warmup

1.

$$x + 1.3 = 8.54$$

Check

2.

$$m - 2.9 = 14.101$$

Check

3. write as an expression:
four more than a number

(Use n for the variable)

4. write as an expression:
seven less a number

(Use y for the variable)

I. Equations

Equation:

A mathematical statement expressing that two quantities or expressions are equal in value.

Equations:

$$x = 4$$

$$2x + 4 = 6$$

$$4x + 6 = 3x - 9$$

Determine if each is an algebraic expression, numerical expression or equation.

$$5x \underline{\hspace{2cm}}$$

$$4x^2 \underline{\hspace{2cm}}$$

$$5(3) + 9 = 24 \underline{\hspace{2cm}}$$

$$x = 8 \underline{\hspace{2cm}}$$

$$5 + 16(4) \underline{\hspace{2cm}}$$

$$7(6)^2 \underline{\hspace{2cm}}$$

(A) algebraic expression

(B) numerical expression

(C) equation

II. Writing Equations to Solve Word Problems

Three more than a number is eight. What is the number?

Equation Word Problems:

- Write the Word problem as an algebraic equation
- Solve for the unknown amount
- Check the answer.

Five and six tenths less than a number is five and eight hundredths. What is the number?

The amount of money Ann had increased by \$3. Ann now has \$10. How much money did she have originally?

Mrs. Smith brought cupcakes for the youth on Wednesday evening. The number of cupcakes was decreased by ten after twenty students went by the table. Fifteen cupcakes remain on the table. How many cupcakes did Mrs. Smith bring.

6. Twenty-three less than a number is twenty-four. What is the number?

7. Twenty-two more than a number is twenty-three. What is the number?

8. A number added to sixteen is twenty-one. What is the number?

III. Simplifying Algebraic Expressions



g = The number of items in the green bag



b = The number of items in the backpack



$$2g + 2b + 1g + 2b$$



$$2g + 1g + 2b + 2b$$

$3g$

+

$4b$

The commutative property of addition allows us to change the order of addition.

Add the "like-terms"
The terms with the same variables (color bags)



$2g$ = The number of items in two green bags

Simplify: $2x + 4x + 3 + x$

Simplify: $3a + 4b + 2a + b$

Simplify: $5m + 2m + 7 + 2n$

9. Simplify: $6s + s + 2s + 3s$

10. Simplify: $4x + 5x + 2v + 3v$

11. Simplify: $m + 2m + 3s + 5 + 4s$

V. Practice

12

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27

Success Check # _____

Name:

Date:

Warmup: Show each step on paper, then check your answer on the website.

1. Write the equation given for each property

Commutative Property of Addition: _____

Commutative Property of Multiplication: _____

Associative Property of Addition : _____

Associative Property of Multiplication : _____

Identity Property of Multiplication : _____

Identity Property of Addition : _____

Zero Property of Multiplication : _____

Simplify each expression

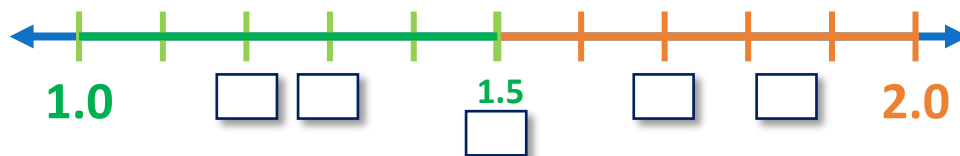
2. $6(5+10)$ $6(5) + 6(10)$

3. $7(6+4)$ $7(6) + 7(4)$

4. Arrange these numbers in order from least to greatest: 7.05, 7.1, 7.0

5. What is a factor? _____

6. Label 1.3, 1.2, 1.85, 1.5 and 1.7 on the number line.



I. Distributive Property

Distributive Property:

The sum of the addends
multiplied by a number

is equal to

sum of the products made
by multiplying each
addend and the number

$$5 (4 + 3) = 5(\underline{\quad}) + 5(\underline{\quad})$$

$$4(9) + 4(1) = 4 (9 + 1)$$

$$1 (2 + \underline{\quad\quad}) = 1(2) + 1(6)$$

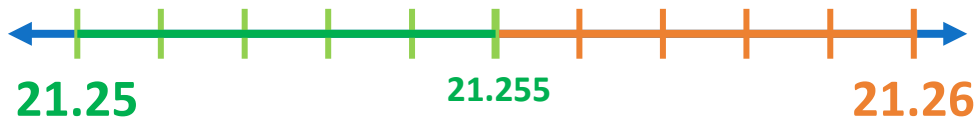
Simplify using the distributive
property: $5x + 5y = 5 (\underline{\quad} + \underline{\quad})$

Simplify using the distributive
property: $2 (x + 8) = 2(x) + 2(8)$

II. Rounding Decimal Numbers

Round 21.254 to the nearest hundredths

21.254



Rounding Decimal Numbers: to round the
decimal to a place value

Underline the number you are rounding to

Circle the place value to the right 

If the number circled is 5 or greater, round up.

If the number circled is less than 5, round down.

The last digit you write should be in the place that was underlined

Round 45.9188
to the nearest
thousandths.

45.9188

Round 4.999 to the nearest tenths.

Round 23.495 to the nearest hundredths.

12. Round 850.29364 to the nearest hundredths place.

13. Round 729.64986 to the nearest hundredths place.

III. Practice

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Success Check # _____

Name:

Date:

Name:

Attempt #:

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Name:

Attempt #:

Test # ____ Answer Sheet

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