

“Education's purpose is to replace an empty mind with an open one.”
~**Malcolm S. Forbes**

Congratulations on moving on! Your first year will begin shortly and you should prepare yourself for what's ahead!



Here's what to do:

- Print out your packet
- Work on each section of your packet throughout the summer
- Show all of your work right on the packet (Do not use separate paper)
- Bring your packet with you on the first day of school in September

*****Calculators are NOT allowed, so please show your work/steps neatly!*****

You will receive a TEST GRADE for the entire packet! This will be your first test grade of the year, so let's start off on the right foot! There might be questions in the packets that you do not know how to do; credit will be given if you showed you tried!

Remember...if you need a little extra help, you can visit these websites!

<http://www.classzone.com>
<http://www.mathwords.com>
<http://mathworld.wolfram.com>
<http://www.purplemath.com>
<http://www.mathisfun.com>
<http://www.math-drills.com>



Keep working hard & enjoy your summer vacation!
See you in September!

“El propósito de la educación es para reemplazar una mente vacía con una abierta.”

Malcolm S. Forbes

Felicidades en tu progreso! Tu primer año empezará pronto y debes prepararte para lo que te espera.



Debes hacer lo indicado:

- Imprimir cada pagina asignada para el verano
- Trabajar cada uno durante el verano
- Debe enseñar el trabajo hecho en las paginas (No use paginas separada de papel)
- Traer todo su trabajo con usted el primer día de escuela en septiembre

*****Por favor no usen CALCULADORAS, únicamente para revisar los resultados.*****

Se le asignará una CALIFICACION que equivale al grado de su examen por todo el trabajo. Esta será su primera calificación del año, así podremos empezar con una actitud positiva en este nuevo año. Habrá algunas preguntas que usted no sabrá como hacerlas, pero se le dará crédito si demuestra que lo probaste.

Recuerde...si necesita ayuda usted puede visitar las siguientes direcciones electrónicas:

<http://www.classzone.com>

<http://www.mathwords.com>

<http://mathworld.wolfram.com>

<http://www.purplemath.com>

<http://www.mathisfun.com>

<http://www.math-drills.com>



¡Continué trabajando duro y disfrute sus vacaciones del verano!

¡Nos vemos en septiembre!

INTEGERS

Add.

- | | |
|----------------------------|----------------------------------|
| 1. $(-24) + (-77) =$ _____ | 2. $(-42) + 19 =$ _____ |
| 3. $32 + (-45) =$ _____ | 4. $(-56) + (-7) =$ _____ |
| 5. $3 + (-7) + 12 =$ _____ | 6. $(-8) + (-5) + (-17) =$ _____ |

Subtract.

- | | |
|------------------------------|-----------------------------|
| 1. $18 - (-4) =$ _____ | 2. $(-9) - 1 =$ _____ |
| 3. $(-3) - (-5) =$ _____ | 4. $26 - (-41) =$ _____ |
| 5. $(-2) - 6 - (-7) =$ _____ | 6. $11 - (-12) - 2 =$ _____ |

Multiply or divide.

- | | |
|--|---|
| 1. $(-2) \bullet (-10) =$ _____ | 2. $86 \bullet (-6) =$ _____ |
| 3. $(-52) \div 13 =$ _____ | 4. $164 \div (-4) =$ _____ |
| 5. $(-4) \bullet (-15) \bullet (-3) =$ _____ | 6. $204 \div (-3) \bullet (-7) =$ _____ |

Find each absolute value.

- | | |
|-----------------------|-----------------------------------|
| 1. $ -3 =$ _____ | 2. $ 12 - 13 =$ _____ |
| 3. $ -3,487 =$ _____ | 4. $ (-43) \bullet (-8) =$ _____ |



Challenge Problem!

Evaluate.

1. $[2 + (-4)] + 5 - [(-11) \bullet (-2)] - (-7) =$ _____

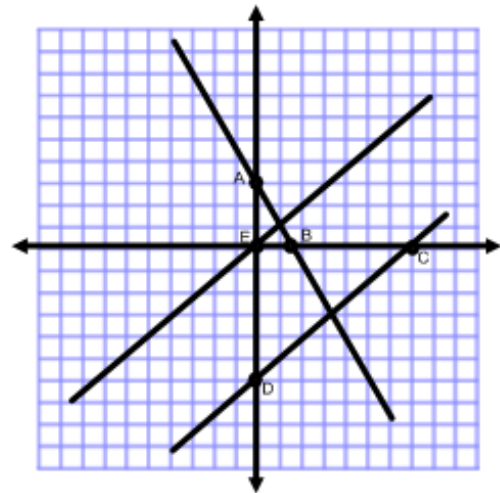
SLOPE

For each line, find the slope and the y-intercept (b).

1. $y = 4x + 2$ $m = \underline{\hspace{2cm}}$, $b = \underline{\hspace{2cm}}$
2. $y = -x + 6$ $m = \underline{\hspace{2cm}}$, $b = \underline{\hspace{2cm}}$
3. $y = -7x - 3$ $m = \underline{\hspace{2cm}}$, $b = \underline{\hspace{2cm}}$
4. $y = x$ $m = \underline{\hspace{2cm}}$, $b = \underline{\hspace{2cm}}$

For each line, find the slope (m), the x-intercept, & the y-intercept (b).

1. Line through A and B
 $m = \underline{\hspace{2cm}}$
x-intercept = $\underline{\hspace{2cm}}$
 $b = \underline{\hspace{2cm}}$
2. Line through C and D
 $m = \underline{\hspace{2cm}}$
x-intercept = $\underline{\hspace{2cm}}$
 $b = \underline{\hspace{2cm}}$



State the slope and y-intercept. Then graph the line.

1. $y = -x + 2$

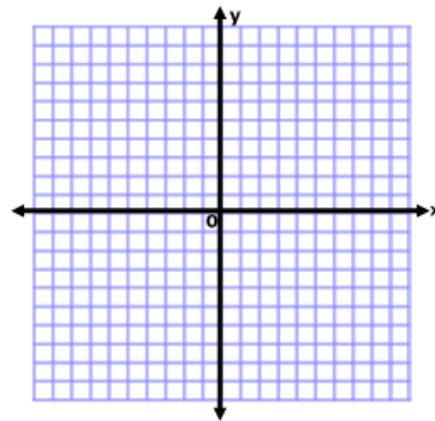
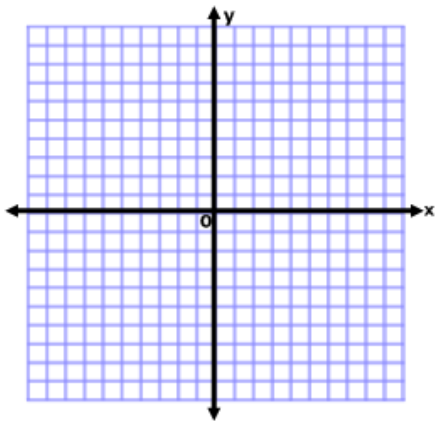
$m =$ _____

$b =$ _____

2. $y = \frac{1}{2}x - 3$

$m =$ _____

$b =$ _____



Challenge Problem!



Solve this linear system of equations.

1.
$$\begin{aligned}x + y &= 5 \\ y &= 2x - 1\end{aligned}$$

Answer _____

EQUATIONS & INEQUALITIES

Solve.

1. $x - 5 = 36$

2. $7 + 3y = -14$

3. $8b + 2b = 10$

4. $-2(m + 7) = -22$

5. $4(w - 9) = 7w + 18$

6. $1.5x - 1.2 = 1.8x$

7. $\frac{3}{8}x + \frac{7}{8} = 2x$

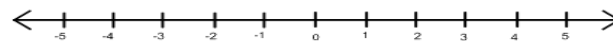
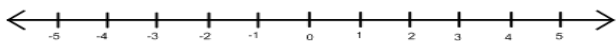
8. $6\frac{4}{5}n - \frac{8}{9} = \frac{7}{15}n$

9. $-4.42y + 0.9 = -9.070 - 0.432y$

Solve and graph.

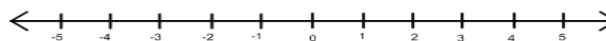
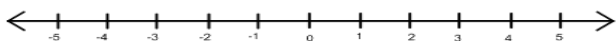
1. $10 + 4y < 18$

2. $4x + 7 \geq 11$



3. $-3(d + 2) < -3$

4. $\frac{1}{3}m - \frac{1}{2}m \geq \frac{1}{4}$



FRACTIONS/DECIMALS/PERCENTS

Use $>$, $<$, or $=$ to compare each pair of numbers.

1. $\frac{7}{8}$ _____ 0.82

2. -0.63 _____ $-\frac{5}{8}$

3. $1\frac{4}{5}$ _____ $\frac{21}{12}$

4. $-3\frac{1}{4}$ _____ $-3\frac{6}{25}$

5. $\frac{15}{27}$ _____ $\frac{16}{24}$

6. $\frac{8}{25}$ _____ 0.32

Write each percent as a decimal and as a fraction/mixed number in lowest terms.

	Decimal	Fraction/Mixed Number
1.	82% _____	_____
2.	60% _____	_____
3.	8% _____	_____
4.	135% _____	_____

Order each group of numbers from least to greatest. Write your answer on the line.

1. $0.7, 0.\bar{7}, \frac{3}{4}, \frac{7}{8}$

2. $-2\frac{2}{3}, -2\frac{2}{5}, -2.1, -2.25$

Challenge Problem!

Complete the statement using $>$, $<$, or $=$.



1. 25% of 80 _____ 125% of 12

FRACTION OPERATIONS

Add, subtract, multiply, or divide. All answers must be in fraction/mixed number form.

1. $-7\frac{3}{11} - (-8) = \underline{\hspace{2cm}}$

2. $5\frac{9}{20} + 1\frac{3}{5} = \underline{\hspace{2cm}}$

3. $7\frac{3}{5} - \frac{4}{5} = \underline{\hspace{2cm}}$

4. $\left(-\frac{3}{8}\right) + \left(-\frac{9}{20}\right) = \underline{\hspace{2cm}}$

5. $(-4) \cdot \frac{3}{5} = \underline{\hspace{2cm}}$

6. $\frac{3}{8} \div \frac{7}{12} = \underline{\hspace{2cm}}$

7. $\left(-6\frac{3}{16}\right) \cdot \left(3\frac{1}{5}\right) = \underline{\hspace{2cm}}$

8. $15 \div \left(-4\frac{1}{6}\right) = \underline{\hspace{2cm}}$

DECIMAL OPERATIONS

Add, subtract, multiply, or divide. All answers must be in decimal form.

1. $0.1465 + 0.28 = \underline{\hspace{2cm}}$

2. $-3.8712 - 6.84 = \underline{\hspace{2cm}}$

3. $7.039 \cdot (-0.04) = \underline{\hspace{2cm}}$

4. $(-4.844) \div (-0.56) = \underline{\hspace{2cm}}$

5. $1.57 - 9.28 = \underline{\hspace{2cm}}$

6. $1.4678 + (-1.564) = \underline{\hspace{2cm}}$

7. $(-9.767) \cdot (-4.089) = \underline{\hspace{2cm}}$

8. $37.41 \div (-4.3) = \underline{\hspace{2cm}}$

POLYNOMIALS

Simplify.

1. $5y^2 + 7y^2 =$ _____

2. $3x^4 - 3x + 4x^2 + x =$ _____

3. $9d^3 - 5d^2 - 4d^3 =$ _____

4. $(3x^2 + 4x) + (x^2 + 7x - 3) =$ _____

5. $(5b^2 - 4b + 7) + (3b^2 + 4b + 11) =$ _____

6. $(-x^3 + 8x - 2) - (8x^3 - 6x^2 + x + 10) =$ _____

7. $4y(y^2 + 5y - 3) =$ _____

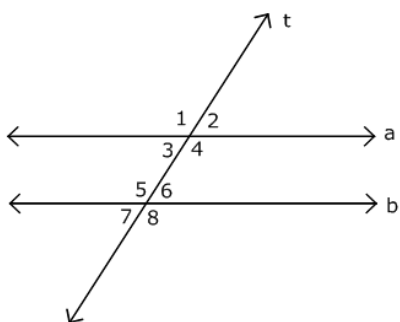
8. $(6n + 5)(-2n - 5) =$ _____

9. $(m + 6)(3m^2 - 4m + 1) =$ _____

10. $\left(\frac{1}{2}x + 2\right)(4x - 6) =$ _____

GEOMETRY

In the following diagram, lines a & b are parallel and line t is a transversal line. The measure of angle 8 is 117° . Use this information to answer the questions.



1. Name both pairs of alternate interior angles.

2. $m\angle 2 =$ _____

3. Name a pair of corresponding angles.

4. $m\angle 5 =$ _____

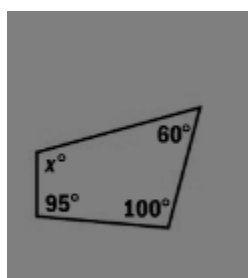
5. Name a pair of vertical angles. _____

6. Name both pairs of alternate exterior angles. _____

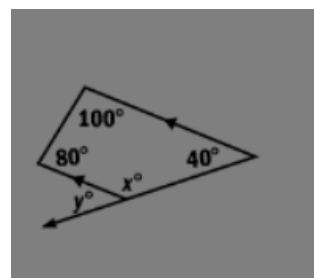
7. What kind of angles are $\angle 1$ & 2 ? _____

Find the values of x & y .

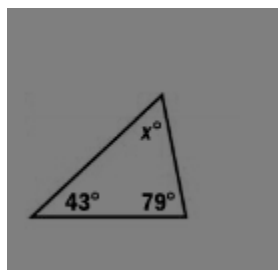
1. $x =$ _____



2. $x =$ _____, $y =$ _____

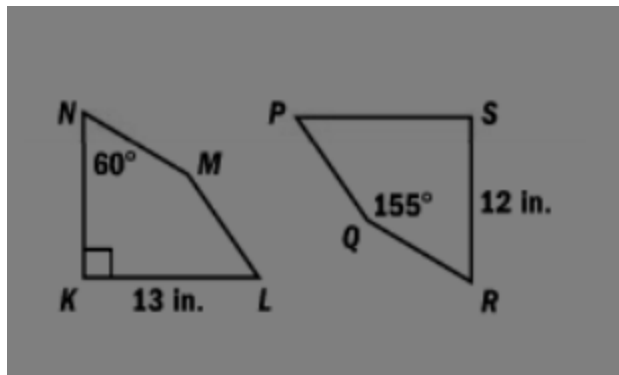


3. $x =$ _____



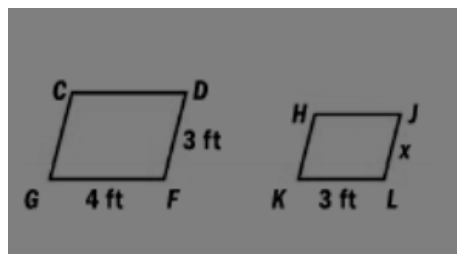
In the following diagram, quadrilateral $KLMN \cong$ quadrilateral $SPQR$.
Use this information to answer the questions.

- $m\angle S =$ _____
- Find the length of $\overline{NK} =$ _____
- $m\angle LMN =$ _____



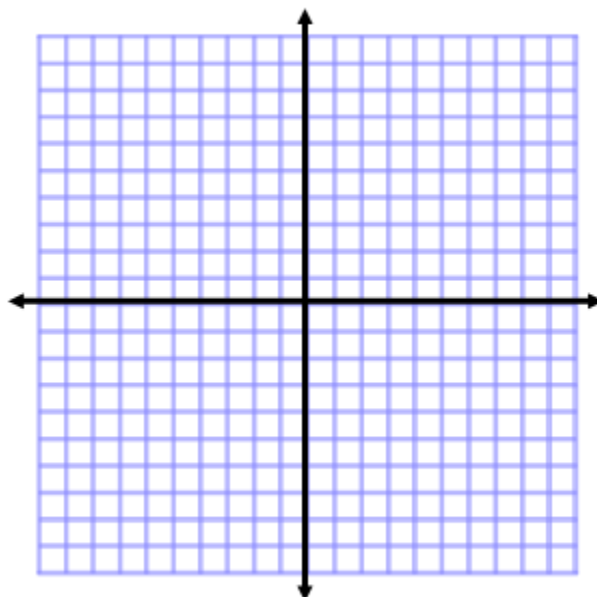
In the following diagram, $CDFG \sim$ $HJLK$. Use this information to find the value of x .

- $x =$ _____



Graph and label (with letters) these figures on the same plane.

- | | |
|-------|------------------------------------|
| PQRS: | P(-2,4), Q(-5,4), R(-8,0), S(-2,0) |
| TUVW: | T(4,8), U(8,8), V(8,0), W(4,0) |
| ABC: | A(0,-3), B(0,-7), C(-6,-7) |
| DEFG: | D(3,-1), E(5,-3), F(3,-5), G(0,-5) |



EXPRESSIONS & EXPONENTS

Evaluate for the given value. Write your answer on the line.

1. $4x - 5$, for $x = 7$

2. $\sqrt{a+b^2} - \sqrt{a^2}$, for $a = 7$ & $b = 3$

3. $\frac{50-x}{y+3}$, for $x = 5$ & $y = -5$

4. $-8(b-c) + 8(b+c)$, for $b = 3$ & $c = -3$

Evaluate each expression.

1. $(2+1)^4 \div 9 - 4 =$ _____

2. $(5 \cdot 3)^2 - (63 \div 7)^3 =$ _____

3. $\frac{3}{4} \cdot 4 + 6^2 \div 9 =$ _____

4. $[(9-7)^5 + 17] \div \left(-\frac{1}{7}\right) =$ _____