

BELLRINGERS



ALGEBRA 2 BELLRINGER

8/23/2013 & 8/26/2013

1. $|6x| < 30$

2. $|-10n| \leq 90$

PRE CAL BELLRINGER

8/23/2013 & 8/26/2013

1. FIND THE DOMAIN & RANGE:

$$Y = \frac{\quad}{+}$$

2. FIND THE DOMAIN & RANGE:

$$Y = 3 + \sqrt{\quad}$$

GEOMETRY BELLRINGER

8/26/2013

1. FIND THE EQUATION OF THE LINE THAT GOES THRU $(-1, -2)$ AND HAS A SLOPE OF -3 .

2. FIND THE EQUATION OF THE LINE THAT GOES THRU $(1, 4)$ & $(-5, 2)$

ALGEBRA 2 BELLRINGER

8/27/2013 & 8/28/2013

Solve and graph:

1. $4(n-2) - 6 > 26$

2. $6 | 5-x | \leq 2$

3. Solve this system of Inequalities by graphing: (I can provide you with a sheet of graph paper if you need it)

$y > |x-2|$

$y \leq x + 3$

PRE CAL BELLRINGER

8/27/2013 & 8/28/2013

1. FIND THE DOMAIN & RANGE:

$$Y = \sqrt{\quad}$$

2. FIND THE DIFFERENCE QUOTIENT:

$$f(x) = 3 \quad - \quad +$$

GEOMETRY BELLRINGER

8/28/2013

- 1. Draw two parallel lines and a transversal**
- 2. Add two angles to #1 that are alternate exterior angles and label them $\angle A$ & $\angle B$**
- 3. Add two angles to #1 that are same side interior angles and label them $\angle C$ & $\angle D$**
- 4. Add two angles to #1 that are corresponding angles and label them $\angle E$ & $\angle F$**

ALGEBRA 2 BELLRINGER

8/29/2013 & 8/30/2013

Solve and graph:

1. $2 - 2 | 3 - x | \leq 10$

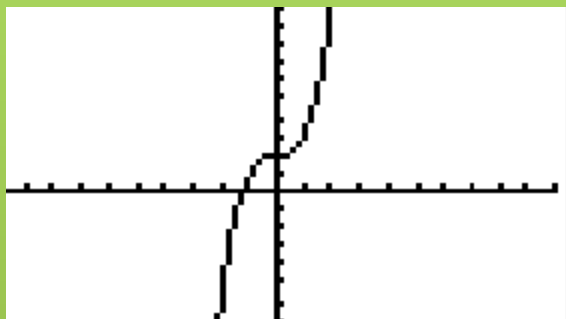
2. Solve this system of Inequalities by graphing: (I can provide you with a sheet of graph paper if you need it)

$$y > | 2x - 3 |$$

$$y \leq -4x + 6$$

PRE CAL BELLRINGER
8/29/2013 & 8/30/2013

1. FIND THE DOMAIN & RANGE:



**2. WHERE IS THE FUNCTION IN #1
INCREASING, CONSTANT AND/OR
DECREASING?**

GEOMETRY BELLRINGER

8/30/2013

1. What is the slope of this line? $y = -x + 4$
2. Where does this line cross the y-axis?
3. What is the slope of a line that is parallel to the line in #1?
4. What is the slope of a line that is perpendicular to the line in #1?
5. What is the midpoint between these two points?
 $(1, 3)$ & $(4, -3)$

ALGEBRA 2 BELLRINGER

9/3/2013 & 9/4/2013

Solve and graph:

1. $3 - 4 | 3 - x | \leq 19$

2. Solve: $| \quad + \quad | - \quad = \quad -$

GEOMETRY BELLRINGER

9/4/2013

1. What is the slope of this line? $y = \frac{-}{\quad}x - 5$
2. What is the x-intercept of this line?
3. What is the y-intercept of this line
4. What is the equation of the line that is parallel to the line in #1 and goes thru the point (3, 2)?
5. What is the slope of the line that is perpendicular to the line in #1 and goes thru the point (5, 0)?

ALGEBRA 2 BELLRINGER

9/5/2013 & 9/6/2013

1. Find the minimum for this objective function ($C = 3x + 4y$) given these constraints:

$$x + 2y \leq 6$$

$$x \geq 2$$

$$y \geq 1$$

You will need graph paper. If you would like to borrow a piece, please raise your hand and ask me.

PRE CAL BELLRINGER

9/5/2013 & 9/6/2013

1. FIND THE DIFFERENCE QUOTIENT:

$$\left(\frac{f(x+h) - f(x)}{h} \right) = \frac{+ x - 2}{h}$$

2. Find the relative min & the max for

$$f(x) = -x^2 - 4x - 4$$

3. Write the equation of the line perpendicular to this line $y = -2x - 3$ and goes thru the point $(-4, -2)$

GEOMETRY BELLRINGER

9/6/2013

Find the other endpoint of the line segment with the given endpoint and midpoint.

1) Endpoint: $(-1, 9)$, midpoint: $(-9, -10)$

2) Endpoint: $(5, 2)$, midpoint: $(-10, -2)$

3) Endpoint: $(-9, 7)$, midpoint: $(10, -3)$

ALGEBRA 2 BELLRINGER

9/9/2013 & 9/10/2013

Solve and graph:

1. $3 - 4 | 3 - x | \leq 19$

2. Solve this system of Inequalities by graphing: $y > |x + 2| - 1$

$$y \leq -2x + 3$$

If you need graph paper, please raise your hand and ask me.

PRE CAL BELLRINGER

9/9/2013 & 9/10/2013

1. Graph these functions by using an old-fashioned x/y chart:

a. $f(x) = x^2$

b. $f(x) = x^2 - 4$

c. $f(x) = (x - 3)^2$

d. $f(x) = (x - 3)^2 - 4$

ALGEBRA 2 BELLRINGER

9/11/2013 & 9/12/2013

Solve each equation below

- 1. $3x + 7 = 19$
- 2. $7 + 4x = 31$
- 3. $26 - 3x = 4x + 19$

- 4. $3.5(x + 2) + 2(x + 2) = 0$
- 5. $5.5x = x - 9$

PRE CAL BELLRINGER
9/11/2013 & 9/12/2013

FIND THE DIFFERENCE QUOTIENT:

$$f(x) = x^2 + x - 2$$

2. NOW, FIND IT USING THIS FORMULA

$$\frac{f(5+h) - f(5)}{h}$$

ALGEBRA 2 BELLRINGER

10/8/2013 & 10/9/2013

Evaluate each function for $x = -3, 0$ & 3

1. $f(x) = -x - 2$

2. $f(x) = -x - 2$

Write Each equation in slope-intercept form

3. $x + 4y = 8$

4. $2x - y = -7$

PRE CAL BELLRINGER
10/8/2013 & 10/9/2013

**1. Find the vertex and x-intercepts
(no calculators!)**

$$F(x) = \quad + \quad +$$

SMUGI ALGEBRA 2

10/8/2013 & 10/9/2013

- 1. NAME 2 THINGS THAT YOU LEARNED ABOUT QUADRATIC FUNCTIONS TODAY
- 2. DETERMINE WHETHER THIS FUNCTION IS LINEAR OR QUADRATIC: $F(x) = (x + 5)(x - 3)$
- 3. FIND A QUADRATIC MODEL FOR THE BELOW TABLE OF VALUES AND THEN DETERMINE THE VALUE WHEN $x = 5$

X	-4	0	1
F(X)	1	9	16

GEOMETRY BELLRINGER

12/13/13

Fill in the blanks:

1. _____ angles are always _____

And

2. _____ angles are always _____

Solve

3. Two same-side angles have measurements of $(x + 2)^\circ$ and $(2x - 6)^\circ$. Find the measurements of both angles.
4. Two corresponding angles have measurements of $(x + 2)^\circ$ and $(2x - 6)^\circ$. Find the measurements of both angles.

ALGEBRA 2 BELLRINGER

10/14/2013 & 10/15/2013

Graph this parabola:

$$Y = \quad + \quad -$$

PRE CAL BELLRINGER
(NO CALCULATORS!!)
10/14/2013 & 10/15/2013

1. Factor: + +

2. Factor: - -

3. Divide: 336 ÷ 14

4. Divide: 4,875 ÷ 15

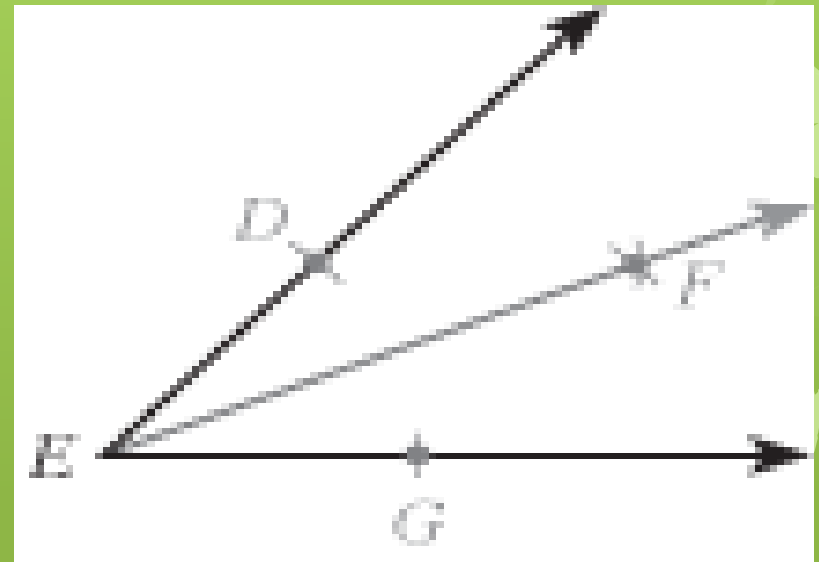
5. Divide: 98,568 ÷ 444

GEOMETRY BELLRINGER

10/15/2013

○ In the figure below, ray \overrightarrow{ED} was constructed starting from rays \overrightarrow{EA} and \overrightarrow{EB} . By using a compass, D and G were marked equidistant from E on rays \overrightarrow{EA} and \overrightarrow{EB} . The compass was then used to locate a point F , distinct from E , so that F is equidistant from D and G . For all constructions defined by the above steps, the measures of $\angle DEF$ and $\angle GEF$:

- F. are equal.
- G. are NOT equal.
- H. sum to 30° .
- J. sum to 45° .
- K. sum to 60° .



GEOMETRY BELLRINGER

10/23/2013

1. What is the slope of this line? $y = \frac{-}{\quad}x - 5$
2. What is the x-intercept of this line?
3. What is the y-intercept of this line
4. What is the equation of the line that is parallel to the line in #1 and goes thru the point (3, 2)?
5. What is the slope of the line that is perpendicular to the line in #1 and goes thru the point (5, 0)?

ALGEBRA 2 BELLRINGER

11/1/2013 & 11/4/2013

What are the domain and the range of this function?

1. $y = \frac{+}{-}$

2. $Y = \frac{\quad}{-}$

3. $= \sqrt{\frac{\quad}{-}}$

PRE CAL BELLRINGER

11/1/2013 & 11/4/2013

1. Factor: + -

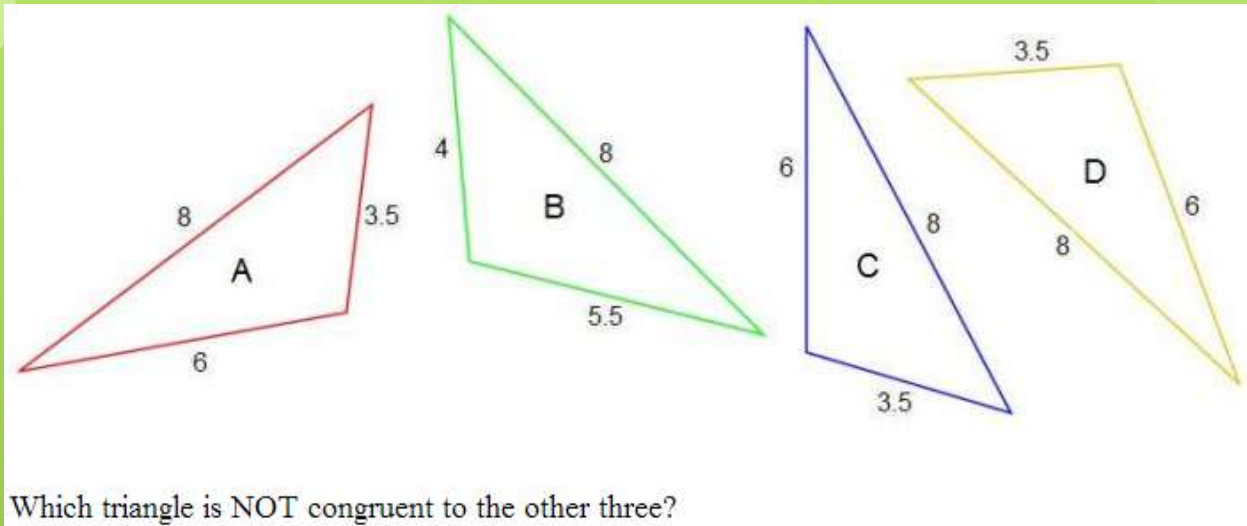
2. Factor: + -

3. Solve by factoring: - =3

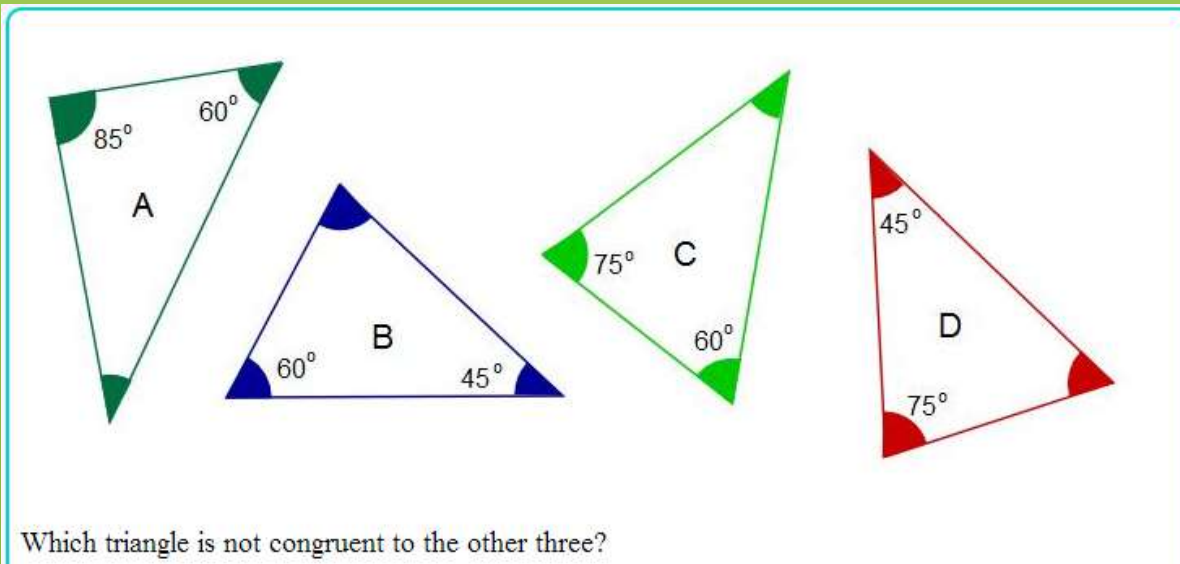
GEOMETRY BELLRINGER

11/4/2013

1



2



GEOMETRY BELLRINGER

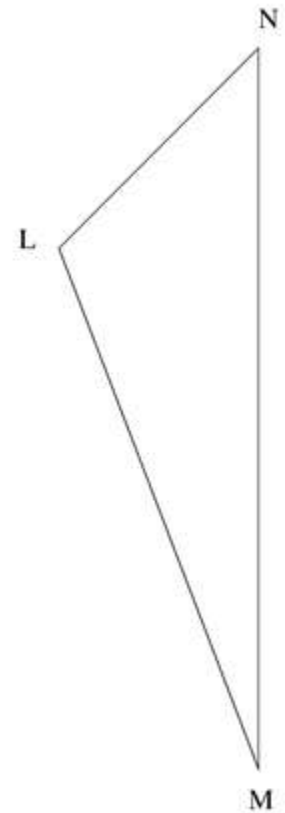
11/8/2013

Given :

- $m\angle N = 42^\circ$
- $m\angle L = 116^\circ$

Prove :

$$m\angle M = 22^\circ$$



Statements

Reasons

ALGEBRA 2 BELLRINGER

11/12/2013 & 11/13/2013

What are the domain and the range of these functions?

1. $y = + -$

2. $Y = \frac{\quad}{-}$

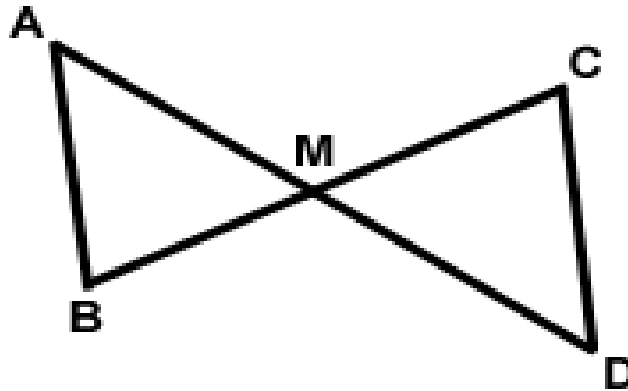
3. $=\sqrt{\quad -}$

4. Factor this quadratic equation:

$y = - -$

GEOMETRY BELLRINGER

12/4/2013



Given:

Segment AD bisects segment BC.

Segment BC bisects segment AD.

Prove:

Triangles ABM and DCM are congruent.

ALGEBRA 2 BELLRINGER

11/14/2013 & 11/15/2013

The function $y = (x + 2)^2 + 3$ is reflected across the y-axis. What are the coordinates of the vertex after this reflection?

Which transformations can be performed on the graph of $f(x) = x^2$ that result in the graph of $f'(x) = -2x^2 - 12x - 13$?

ALGEBRA 2 BELLRINGER

12/3/2013 & 12/4/2013

Consider the real-valued functions $f(x) = x^2 - 6$ and $g(x) = 2x - 3$.

- A. What are the domain and range of each function? Explain how you determined your answers.
- B. Find $f(g(x))$. Show your algebraic work, and explain the approach you used to find your answer.
- C. What are the domain and range of $f(g(x))$? Show your algebraic work, and explain the approach you used to find your answer.

PRE CAL BELLRINGER

12/3/2013 & 12/4/2013

1. What is the distance between these points?
 $(1, -3)$ & $(-4, 9)$
2. If $\sin(x) = \frac{\sqrt{\quad}}{\quad}$, (\quad) ?
3. If a circle is centered at $(2, -3)$ and is tangent to the x-axis, what is the equation of this circle?
4. In a race, Shyann runs 2 miles in 20 minutes and 48 seconds. What is her rate in mph?
(round to the nearest hundredth)

ALGEBRA 2 BELLRINGER

12/3/13 & 12/4/13

Find the discriminant of each quadratic equation then state the number and type of solutions.

1) $-x^2 - 7x + 5 = -3$

Solve each equation by factoring.

2) $x^2 - 2 = x$

Solve each equation with the quadratic formula.

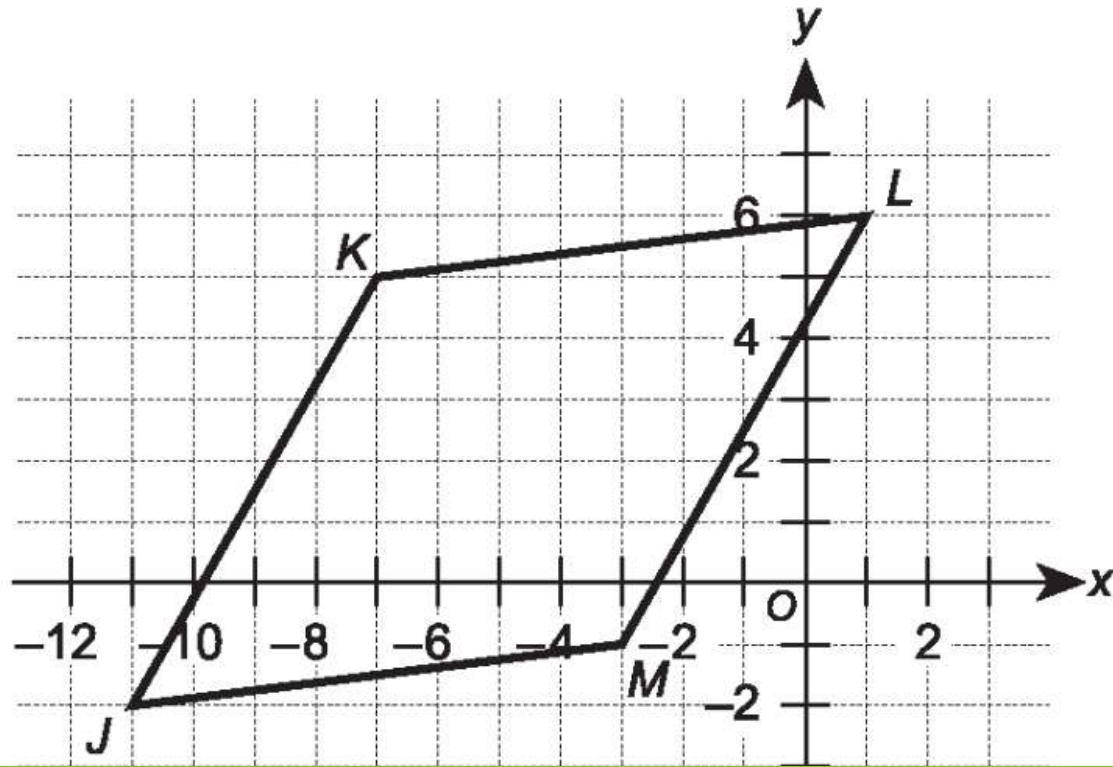
3) $6n^2 = -12n + 21$

Solve each equation by completing the square.

4) $m^2 - 2m - 28 = -4$

Geometry Bellringer 12/6/13

Quadrilateral $JKLM$ is graphed in the coordinate plane. Classify quadrilateral $JKLM$ as specifically as possible. Show your work, and explain why your answer is correct.



Pre Cal Bellringer 12/5/2013 & 12/6/2013

Given the function:

$$y = \frac{x^2 - 2x - 24}{x^2 + 3x - 4}$$

- A. Find all vertical and horizontal asymptotes, all removable discontinuities, and the x - and y -intercepts of the graph of the equation. Show your work, and

Geometry Bellringer 12/11/13

Quadrilateral $ABCD$ has diagonals that are perpendicular. It also has exactly one pair of opposite angles with equal measure. What type of quadrilateral is it?

PreCal Bellringer

Monday 12/16/13

& Tuesday 12/17/13

What are the zeros of $f(x) = x^3 - 2x^2 - 16x - 16$?

**Then Graph this function by hand
by finding all local extrema and
then sketching in the graph**

Algebra 2 Bellringer

12/12/13 & 12/13/13

○ Solve this quadratic equation: - - =

(a) By factoring

(b) By Completing the Square

(c) By using the Quadratic Formula

ALGEBRA 2 BELLRINGER

WEDNESDAY 12/18/13

1. SOLVE AND GRAPH $|x| - 3 > 0$

2. SOLVE AND GRAPH $|3x - 2| < 7$

PRE CAL BELLRINGER 12/18/13

- FIND ALL ROOTS OF THIS EQUATION:

$$3X^4 + 6X^3 - 123X^2 - 126X + 1,080 = 0$$

HINT: TRY 3 FIRST, THEN 5...

GEOMETRY BELLRINGER 2/18/2014

Show that $A(2, -1)$, $B(1, 3)$, $C(6, 5)$, and $D(7, 1)$ are the vertices of a parallelogram.

PRE CAL BELLRINGER TUESDAY 1/14/14 & WEDNESDAY 1/15/14

1.

Completely simplify $\frac{x^{-2} \cdot x^2}{x}$

ALGEBRA 2 BELLRINGER

THURSDAY 1/16/14 & FRIDAY 1/17/14

Consider the circle with the equation $(x - 2)^2 + (y + 3)^2 = 64$.

- A. What are the center and radius of the circle? Explain how you determined your answer.
- B. Sandy says $(-2, -10)$ is a point on the circle. Is Sandy correct? Show your work algebraically, and explain how you made your decision.
- C. Graph the circle. Explain the procedure you used to graph the circle.

PRE CAL BELLRINGER THURSDAY 1/16/14 & FRIDAY 1/17/14

Mr. Jones wants to invest \$5,000 in a certificate of deposit (CD) that is compounded continuously. The CD will earn \$1,000 over a term of 3 yr.

- A. Find the interest rate, as a percent rounded to the nearest tenth, that is necessary to earn \$1,000. Do not use a graph from your calculator. Show your work, and explain how you found your answer.

GEOMETRY BELLRINGER FRIDAY

1/17/14

FIND THE MEASURE OF AN ANGLE OF EACH REGULAR POLYGON:

1. TRIANGLE
2. QUADRILATERAL
3. HEXAGON
4. OCTAGON
5. DECAGON
6. 14-A-GON

ALGEBRA 2 BELLRINGER MONDAY 1/27/14 & WEDNESDAY 1/29/14

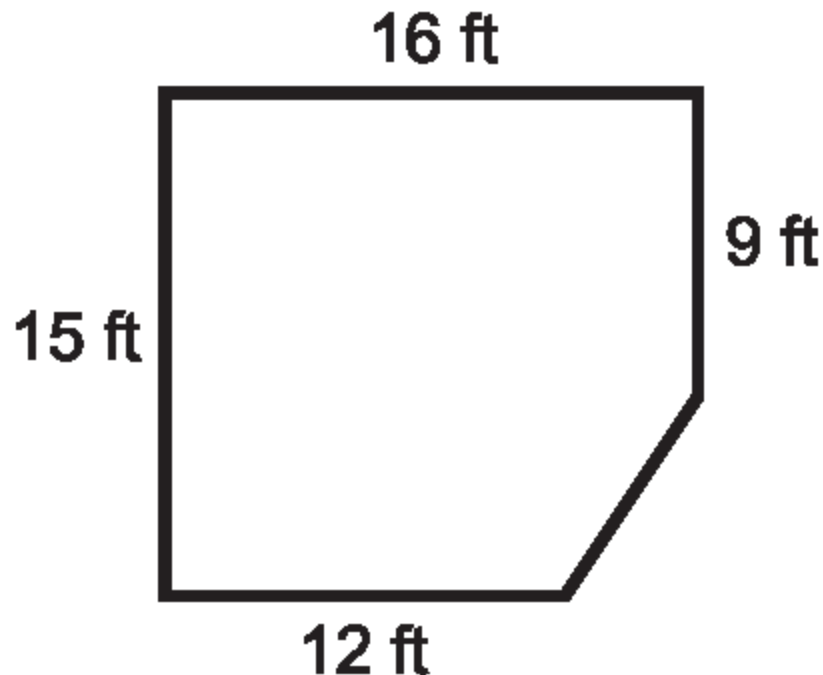
Consider the function $g(x) = -(x+3)^2 + 1$.

- Describe the transformations that could occur to the graph of $f(x) = x^2$ to get $g(x)$.
- Graph $g(x)$ using the vertex and at least 3 points on one side of the vertex. Show your work algebraically and label the points using ordered pairs.
- What are the domain and range of $g(x)$? Explain how you determined your answers.

GEOMETRY BELLRINGER

WEDNESDAY 1/29/14

The classroom, represented in the figure, needs new tile. Find the minimum square feet of tile needed to cover the area of the classroom.



ALGEBRA 2 BELLRINGER

THURSDAY 1/30/14 & FRIDAY 1/31/14

1. This is the equation of a parabola:

$$y = -2x^2 + 4x + 2$$

Determine the x -value for the vertex and whether this value is a maximum or a minimum.

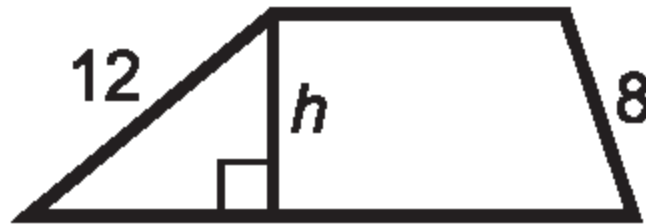
2. What is the standard form of this equation of a circle?

$$3x^2 + 3y^2 - 6x + 18y + 18 = 0$$

GEOMETRY BELLRINGER

FRIDAY 1/31/14

The area of the trapezoid is 90 cm^2 . The perimeter is 50 cm . What is the height, to the nearest hundredth of a centimeter, of the trapezoid?



PRECAL BELLRINGER THURSDAY 1/30/14 & FRIDAY 1/31/14

SIMPLIFY USING EXPONENT RULES:

1.

$$\left(\frac{m^3 p^5}{n^7}\right)^6 \cdot \left(\frac{m^2 n^0 p^3}{m^4 n^2}\right)^3$$

2.

$$(5x^7 y^3 z^{-1})^2 \cdot (2xy^{-5})^3 \cdot (2y^{-3} z^2)^3$$

3.

$$\left(\frac{m^0}{m^{-\frac{1}{2}} n^{-1} \cdot n}\right)^2$$

ALGEBRA 2 BELLRINGER TUESDAY 2/4/14 & WEDNESDAY 2/5/14

The general form of a particular circle is $x^2 + y^2 - 4x + 2y - 11 = 0$.

- A. What is the standard form of the equation of the circle? Show your work algebraically, and explain the approach you used to find your answer.
- B. Determine the coordinates for the center of the circle. Explain how you determined your answer.

PRECALCULUS BELLRINGER

TUESDAY 2/4/14 & WEDNESDAY 2/5/14

1.

$$\frac{(x^2y^3)^4}{(xy)^2}$$

2.

$$x^0 + \sqrt{\frac{x^4}{y^6}}$$

3.

$$\left(x^{\frac{1}{3}} + x^{-\frac{1}{3}}\right)\left(x^{\frac{2}{3}} - 1 + x^{-\frac{2}{3}}\right)$$

4.

$$\text{Simplify } \log_b a^3 - \log_b a^2$$

GEOMETRY BELLRINGER
TUESDAY 2/4/14

A Ferris wheel with 20 equally spaced seats has a diameter of 28 m. What is the arc length, in meters, between consecutive seats?

ALGEBRA 2 BELLRINGER TUESDAY 2/11/14 & WEDNESDAY 2/12/14

Which conic section is given by the equation $(x - h)^n = j(y - k)^m - 12$ when $n = 2$, $m = 1$, and $j = -2$?

PRECALCULUS BELLRINGER

TUESDAY 2/11/14 & WEDNESDAY 2/12/14

1.

$$\text{Evaluate } \frac{\log_5 25}{\log_5 5}.$$

2.

$$\text{Evaluate } \log_{10} \left(\frac{10}{\sqrt[3]{10}} \right).$$

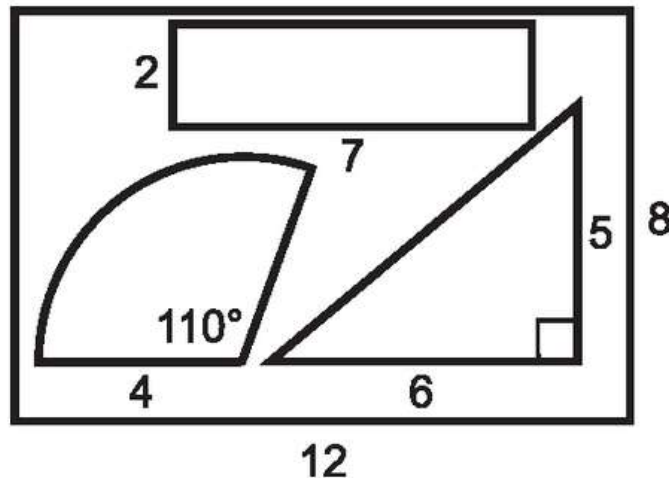
3.

$$\text{If } 8^0 + \frac{2}{3} = \left(\frac{3}{5} \right)^{2-3x}, \text{ find } x.$$

GEOMETRY BELLRINGER

TUESDAY 2/11/14

For a carnival game, a person chooses 1 of 3 shapes on a rectangular board: a sector of a circle, a rectangle, and a triangle. Then, 1 point on the board is selected at random and lights up. If the point is within the shape the player chose, he or she wins a prize. All lengths are in inches.



- A. Which of the 3 shapes should Keisha choose to have the greatest probability of winning? Find the probability, to the nearest tenth of a percent, of winning for each of the 3 shapes. Show your work, and explain how you found your answer.
- B. Keisha, JoAnna, and Ricardo play the game at the same time and each chooses a different shape. To the nearest tenth of a percent, what is the probability that none of them will win? Show your work algebraically, and explain how you found your answer.

THURSDAY 2/13/14 & FRIDAY 2/14/14

Write the equation of this circle in standard form:

$$x^2 + y^2 - 2x - 4y - 4 = 0$$

- **What is the center of this circle?**
- **What is the radius of this circle?**
- **What would the equation of this circle be if you moved it up 4 and left 5?**

PRECALCULUS BELLRINGER

THURSDAY 2/13/14 & FRIDAY 2/14/14

1.

Which expression is equivalent to $\ln(3e^{2x})$?

A. $2x + \ln 3$

B. $2x \ln 3$

C. $6x$

D. $3 \ln 2x$

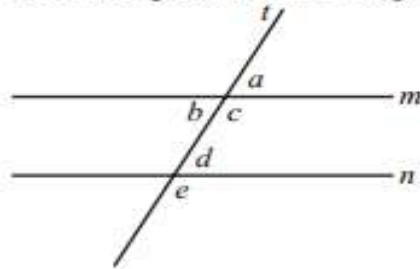
2.

If $\log_2 x = -3$, what is x ?

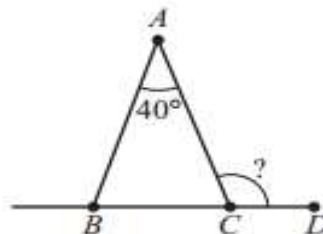
GEOMETRY BELLRINGER

FRIDAY 2/14/14

1. In the figure below, line m is parallel to line n , and line t is a transversal crossing both m and n . Which of the following lists has 3 angles that are all equal in measure?



- A. $\angle a, \angle b, \angle d$
B. $\angle a, \angle c, \angle d$
C. $\angle a, \angle c, \angle e$
D. $\angle b, \angle c, \angle d$
E. $\angle b, \angle c, \angle e$
2. As shown in the figure below, $\triangle ABC$ is isosceles with the length of \overline{AB} equal to the length of \overline{AC} . The measure of $\angle A$ is 40° and points $B, C,$ and D are collinear. What is the measure of $\angle ACD$?



- A. 70°
B. 80°
C. 110°
D. 140°
E. 160°

ALGEBRA BELLRINGER MONDAY 2/17/14 & TUESDAY 2/18/14

Solve and graph:

1. $3 - 4 | 3 - x | \leq 19$

2. Solve: $| \quad + \quad | - \quad = \quad -$

PRECALCULUS BELLRINGER MONDAY 2/17/14 & TUESDAY 2/18/14

1. Which is the radian equivalent to three and one-quarter revolutions clockwise?

$\log_3 27$

$\log_5 25$

$\log_2 8$

$\log_4 \frac{1}{64}$

$\log_7 49$

) $\log_3 3$

2 -12.) $\log_5 1$

) $\log_2 16$

) $\log_2 \frac{1}{16}$

) $\log_3 243$

) $\log_6 \frac{1}{36}$

ALGEBRA 2 A.C.T. BELLRINGER
WEDNESDAY 2/19/14 & THURSDAY
2/20/14

SIMPLIFY THESE RADICALS:

1. $\sqrt{\quad}$

2. $\sqrt{\quad}$

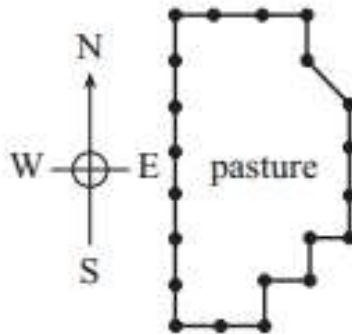
3. $\sqrt{\quad}$

4. $\sqrt{\quad}$

GEOMETRY BELLRINGER

TUESDAY 2/18/14

The diagram below shows a pasture which is fenced in. All but 1 section of fence run straight north-south or east-west. Consecutive fence posts are 10 feet apart except for the 1 diagonal section. Which of the following statements best describes P , the perimeter of the pasture, in feet?



- A. $P > 210$
- B. $P = 210$
- C. $P < 210$
- D. $P > 230$
- E. $P = 240$

PRECALCULUS BELLRINGER WEDNESDAY 2/19/14 & THURSDAY 2/20/14

1. CONDENSE THESE LOGS:

$$6\log_2 12 - 36\log_2 5$$

$$5\log_9 c + \frac{\log_9 a}{3}$$

2. EXPAND THESE LOGS:

$$\log \frac{x^4}{y^{20}}$$

$$b) \log_8 (y^5 x^{15})$$

ALGEBRA 2 BELLRINGER FRIDAY 2/21/2014 & MONDAY 2/24/14

- 1. What are the zeros of the quadratic function $f(x) = x^2 + 3x + 1$?

What is AB ?

- 2.
$$A = \begin{bmatrix} -3 & 1 \\ 6 & 0 \\ 4 & 2 \\ 9 & 7 \end{bmatrix} \quad B = \begin{bmatrix} 2 & 6 \\ 5 & 1 \end{bmatrix}$$

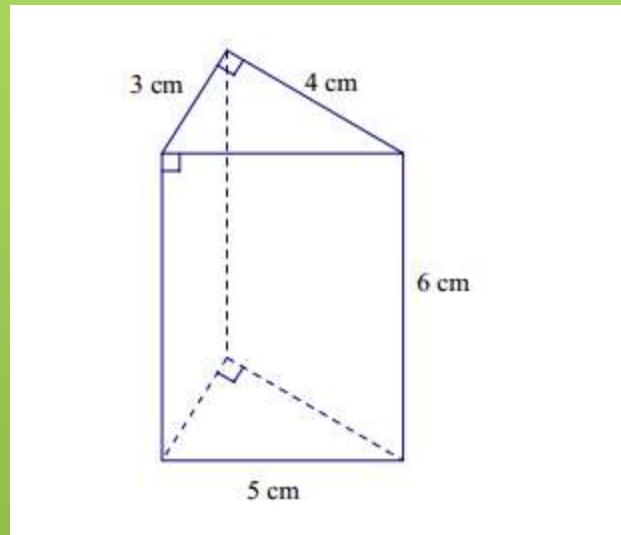
PRE CAL BELLRINGER FRIDAY 2/21/14 & MONDAY 2/24/14

1. $2\log_b(x) = \log_b(4) + \log_b(x - 1)$

2. $e^x = 80$

GEOMETRY SMUGI MONDAY 2/24/14

- FIND THE SURFACE AREA AND LATERAL AREA



PRE CAL BELLRINGER TUESDAY 2/25/14 & THURSDAY 2/27/14

1.
$$\left(\frac{x^2 y^0 \cdot x^{\frac{1}{2}} y^0}{yx^3} \right)^{\frac{2}{3}}$$

2.
$$7 - 2e^x = 5$$

3.
$$-2 + 2 \ln 3x = 17$$

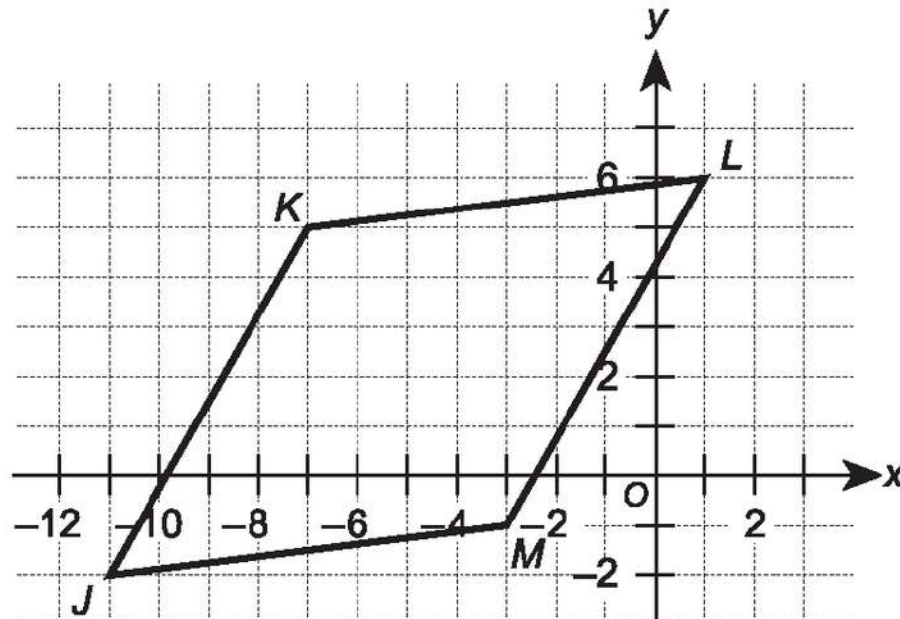
GEOMETRY BELLRINGER

WEDNESDAY 2/26/14

Quadrilateral $ABCD$ has diagonals that are perpendicular. It also has exactly one pair of opposite angles with equal measure. What type of quadrilateral is it?

1.

Quadrilateral $JKLM$ is graphed in the coordinate plane. Classify quadrilateral $JKLM$ as specifically as possible. Show your work, and explain why your answer is correct.



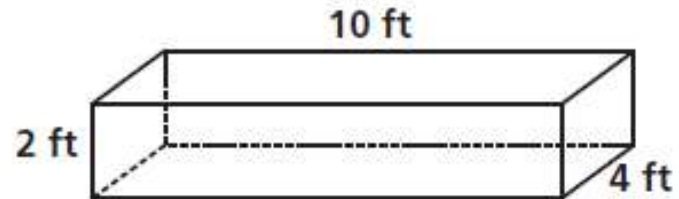
2.

$$6) \left(\frac{u - u^{\frac{7}{4}} - v}{u^{\frac{4}{3}} v^{\frac{5}{3}}} \right)^{-3}$$

$$6) \frac{v^2 u^{\frac{3}{4}}}{u^5}$$

GEOMETRY SMUGI 2/27/14

1. Find the surface area of a cylinder with a height of 8 inches and a radius of 6 inches to the nearest tenth.
2. Find the surface area of the prism.



ALGEBRA 2 BELLRINGER FRIDAY 2/28/14 & MONDAY 3/3/14

Solve this system of Inequalities by graphing:

$$y > |2x - 3|$$

$$y \leq -4x + 6$$

ALGEBRA 2 SMUGI FRIDAY 2/28/14 & MONDAY 3/3/14

GRAPH AND SHADE THE SYSTEM OF INEQUALITIES BY HAND:

$$y \geq$$

$$y \leq x + 3$$

PRE CAL BELLRINGER FRIDAY 2/28/14 & THURSDAY 3/6/14

1. TRANSFORM ONE SIDE OF THE EQUATION TO EQUAL
THE OTHER SIDE: $(1 + \cos \theta)(1 - \cos \theta) = \sin^2 \theta$

2. Find two coterminal angles for $\theta = \frac{\pi}{6}$

3. Find the arc length of an arc on a circle
with radius, r , and intercepted by a central
angle, θ .

Radius = 12, central angle = 50°

ALGEBRA 2 BELLRINGER FRIDAY 3/7/14 & MONDAY 3/10/14

SOLVE THESE SYSTEMS OF EQUATIONS USING
SUBSTITUTION:

1. $y = -4x + 24$
 $2x - 3y = -2$

2. $3y - 2x = 11$
 $y + 2x = 9$

GEOMETRY BELLRINGER FRIDAY

3/14/14

- 1. FIND THE SURFACE AREA OF A CYLINDER WITH RADIUS 10 INCHES AND HEIGHT 3 INCHES
- 2. FIND THE LATERAL AREA AND SURFACE AREA OF A CUBE WITH SIDES THAT ARE 2 FEET EACH
- 3. FIND THE VOLUME OF A CONE WITH RADIUS OF 3 METERS AND HEIGHT OF 8 METERS
- (ROUND ALL DECIMALS TO THE NEAREST HUNDREDTH)

ALGEBRA 2 BELLRINGER THURS 3/13/14 & FRI 3/14/14

- 1.) $3 + 2i - 4 - 6i$
- 2.) $(3-4i) - (3-6i)$
- 3.) $(3-4i)(3-6i)$
- 4.) $\frac{3-4}{2-5}$

PRE CAL BELLRINGER THURS 3/13 & FRIDAY 3/14

- 1.) $\ln 4x = 10$
- 2.) $10^{3-2} = 12$
- 3.) Transform the left side of the equation to the right side of the equation: $\frac{(\tan b + \cot b)}{\tan} = 2$

ALGEBRA 2 BELLRINGER

Wednesday 3/19/14 & Thursday 3/20/14

What are the domain and the range of these functions?

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

2. $y = \frac{1}{x^2-4}$

3. $y = \sqrt{x-2}$

4. Factor this quadratic equation:

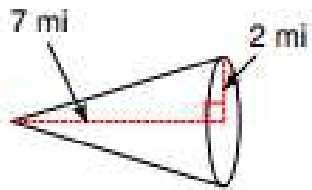
$y = x^2 - 4$

GEOMETRY BELLRINGER

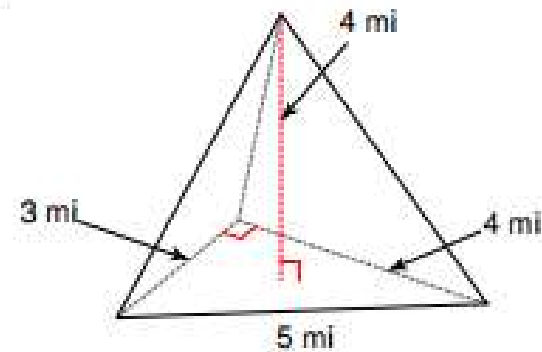
THURSDAY 3/20/14

Find the volume of each figure. Round your answers to the nearest tenth, if necessary.

1)



2)



GEOMETRY SMUGI THURSDAY

3/20/14

FIND THE VOLUME OF EACH

1

A square pyramid measuring 10 yd along each edge of the base with a height of 6 yd.

2

A cone with radius 4 m and a height of 12 m.

PRE CALCULUS BELLRINGER

WEDNESDAY 3/19/14 & THURSDAY 3/20/14

Determine the quadrant in which each angle lies.

1. 77°

2. 240°

3. -9°

Find the values of θ in degrees ($0^\circ < \theta < 90^\circ$) and radians ($0 < \theta < \pi/2$) without the aid of a calculator.

4. $\cos \theta = \frac{\sqrt{3}}{2}$

5. $\tan \theta = \frac{\sqrt{3}}{3}$

6. $\csc \theta = \sqrt{2}$

PRE CALCULUS BELLRINGER FRIDAY 3/21/14 & MONDAY 3/24/14

Evaluate the trigonometric function of the quadrant angle.

1. $\cos\left(\frac{\pi}{2}\right)$

2. $\sin\left(\frac{3\pi}{2}\right)$

Find two solutions of the equation. Give your answers in radians ($0 < \theta < 2\pi$).

3. $\cos(\theta) = -\frac{1}{2}$

4. $\sin(\theta) = \frac{\sqrt{3}}{2}$

5. $\cos(\theta) = 0$

ALGEBRA 2 BELLRINGER

Monday 4/7/14 & Tuesday 4/8/14

What are the domain and the range of these functions?

1. $y = \frac{1}{x} + 2$

2. $Y = \sqrt{x - 4}$

3. Factor this quadratic equation:

$y = x^2 + 5x - 8$

PRE CAL BELLRINGER MONDAY 4/7/14 & TUESDAY 4/8/14

SOLVE FOR X:
(ROUND TO NEAREST HUNDREDTH)

1. $x - 14 = 14$

2. $(x - 4) = 4$

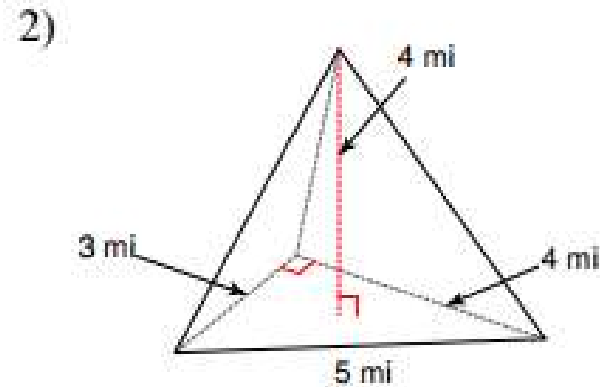
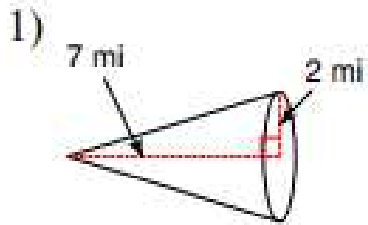
3. $x + 4 = 14$

4. $(x - 4) = 14$

GEOMETRY BELLRINGER

TUESDAY 4/8/14

Find the volume of each figure. Round your answers to the nearest tenth, if necessary.



ALGEBRA 2 BELLRINGER

Wednesday 4/9/14 & Thursday
4/10/14

What are the domain and the range of these functions?

1. $y = -x^2 + 3$

2. $Y = \sqrt{x + 4}$

3. Factor this quadratic equation:

$y = x^2 - 12$

PRE CAL BELLRINGER

Wednesday 4/9/14 & Thursday
4/10/14

What are the domain and the range of these functions?

1. $y = -x^2 + 3$

2. $Y = \sqrt{x+4}$

3. Factor this quadratic equation:

$y = x^2 - 12$

GEOMETRY BELLRINGER MONDAY 4/14/14

1. A PHOTO THAT IS 10 INCHES WIDE AND $1\frac{1}{3}$ INCHES HIGH IS ENLARGED TO A POSTER THAT IS 22 INCHES WIDE AND $12\frac{1}{15}$ INCHES HIGH. WHAT IS THE RATIO OF THE HEIGHT OF THE PHOTO TO THE HEIGHT OF THE POSTER?

2. SOLVE THIS PROPORTION: $\frac{10}{3} = \frac{22}{x}$

3. SOLVE THIS PROPORTION: $\frac{10}{110} = \frac{1\frac{1}{3}}{x}$

ALGEBRA 2 BELLRINGER

Tuesday 4/15/14 & Wednesday
4/16/14

What are the domain and the range of these functions?

1. $y = x^2 + 3$

2. $Y = \sqrt{x - 4}$

3. Factor this quadratic equation:

$y = x^2 - 5x - 3$

PRECAL BELLRINGER

Tuesday 4/15/14 & Wednesday
4/16/14

What are the domain and the range of these functions?

1. $y = \frac{1}{x} + 2$

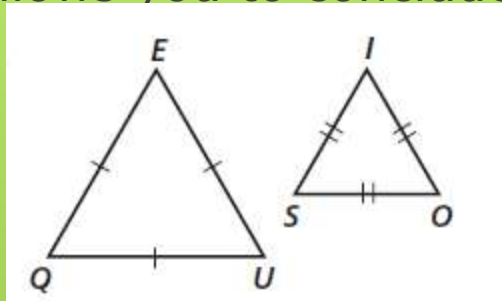
2. $Y = \sqrt{x - 4}$

3. Factor this quadratic equation:

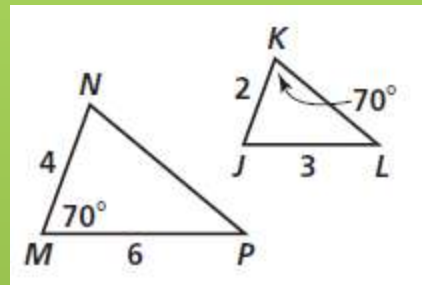
$y = x^2 - 5x - 3$

GEOMETRY BELLRINGER WEDNESDAY 4/16/14

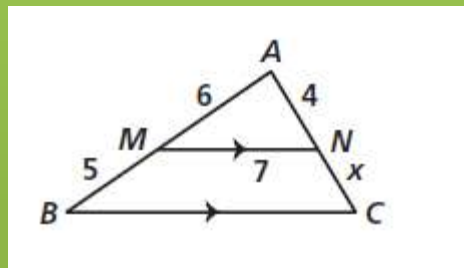
1. Are these pairs of triangles similar? If so, state which postulate allows you to conclude this and write a similarity statement



2. Same directions as #1:



3. SOLVE for x:



ALGEBRA 2 BELLRINGER

Monday 4/21/14 & Tuesday 4/22/14

1. What is the domain and the range of this function? $y = (x - 3)^2 + 2$

2. Factor this quadratic equation:

$$y = x^2 + 5x - 6$$

3. Simplify $\sqrt{16} - \sqrt{9}$

GEOMETRY BELLRINGER TUESDAY 4/22/14

1. FIND THE EQUATION OF THE LINE THAT GOES THRU $(-1, -2)$ AND HAS A SLOPE OF -3 .

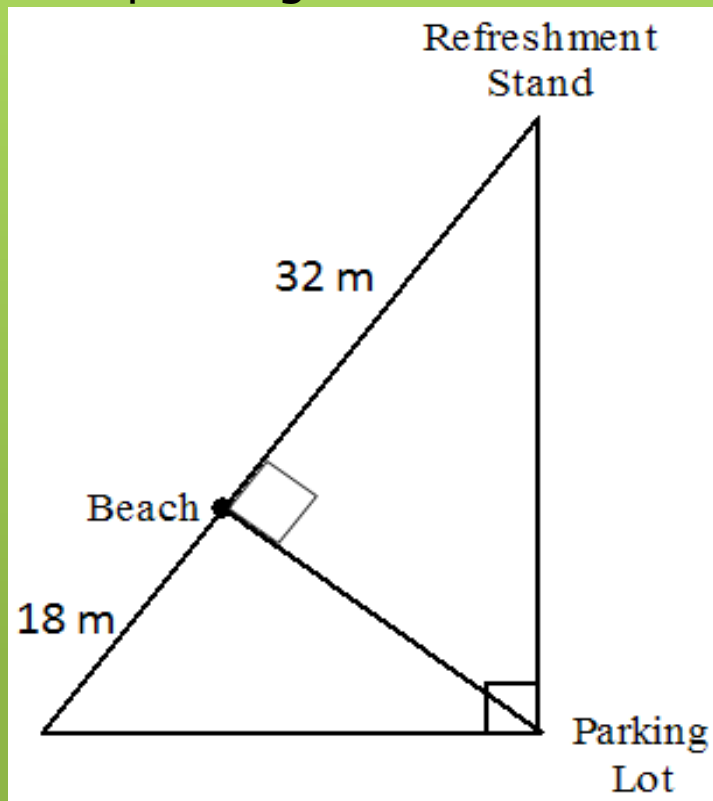
2. FIND THE EQUATION OF THE LINE THAT GOES THRU $(1, 4)$ & $(-5, 2)$

GEOMETRY SMUGI TUESDAY

4/22/14

Joe wants to walk the shortest distance to get from the parking lot to the beach

1. How far is the spot on the beach from the parking lot?
2. How far will be the parking lot from the refreshment stand?



GEOMETRY BELLRINGER THURSDAY 4/24/14

1. FIND THE EQUATION OF THE LINE THAT GOES THRU $(-3, -2)$ AND HAS A SLOPE OF -2 .

2. FIND THE EQUATION OF THE LINE THAT GOES THRU $(-1, 2)$ & $(-5, 3)$

GEOMETRY Bellringer Monday

4/28/14

1. FIND THE EQUATION OF THE LINE THAT GOES THRU $(-2, 4)$ & $(-1, -3)$

2. THE LONGER LEG OF A 30° - 60° - 90° TRIANGLE IS 6. WHAT IS THE LENGTH OF THE HYPOTENUSE?

3. THE HYPOTENUSE OF A 30° - 60° - 90° TRIANGLE IS 30. WHAT IS THE LENGTH OF OF THE LONGER LEG?

4. WHAT IS THE LENGTH OF A DIAGONAL OF A SQUARE WITH SIDES OF LENGTH 4?

ALGEBRA 2 BELLRINGER

Friday 4/25/14 & Monday 4/28/14

1. What is the domain and the range of this

function? $y = \sqrt{\quad + \quad} - 2$

2. What is the domain of this function: $\frac{\quad}{\quad}$

3. Factor this quadratic equation:

$$y = \quad + \quad - 30$$

4. Simplify $\sqrt{\quad} - \sqrt{\quad}$

PRE CALCULUS BELLRINGER

Friday 4/25/14 & Monday 4/28/14

1. What is the domain and the range of this

function? $y = \sqrt{\quad + \quad} - 2$

2. What is the domain of this function: $\frac{\quad}{\quad}$

3. Factor this quadratic equation:

$$y = \quad + \quad - 30$$

4. Simplify $\sqrt{\quad} - \sqrt{\quad}$

GEOMETRY Bellringer

WEDNESDAY 4/30/14

1. FIND THE EQUATION OF THE LINE THAT GOES THRU $(-3, 2)$ & $(1, -5)$

2. THE LONGER LEG OF A 30° - 60° - 90° TRIANGLE IS 2. WHAT IS THE LENGTH OF THE HYPOTENUSE?

3. THE HYPOTENUSE OF A 30° - 60° - 90° TRIANGLE IS 10. WHAT IS THE LENGTH OF OF THE LONGER LEG?

4. WHAT IS THE LENGTH OF A DIAGONAL OF A SQUARE WITH SIDES OF LENGTH 6?

ALGEBRA 2 BELLRINGER

Thursday 5/1/14 & Friday 5/2/14

1. Write this polynomial in standard form:

$$(x + 3)(x + 2)$$

2. Write this polynomial in factored form:

$$x^2 - 5x + 6$$

3. Correctly name the answers in #1 & #2

GEOMETRY Bellringer FRIDAY

5/2/14

1. FIND THE EQUATION OF THE LINE THAT GOES THRU $(-2, 2)$ & $(1, -2)$

2. THE LONGER LEG OF A 30° - 60° - 90° TRIANGLE IS 4. WHAT IS THE LENGTH OF THE HYPOTENUSE?

3. THE HYPOTENUSE OF A 30° - 60° - 90° TRIANGLE IS 11. WHAT IS THE LENGTH OF OF THE LONGER LEG?

4. WHAT IS THE LENGTH OF A DIAGONAL OF A SQUARE WITH SIDES OF LENGTH 3?

ALGEBRA 2 BELLRINGER MONDAY 5/5/14 & TUESDAY 5/6/14

1. Write this polynomial in standard form:

$$(\quad + \quad)(\quad - \quad)$$

2. Write this polynomial in factored form:

$$\quad - \quad +$$

3. Correctly name the answers in #1 & #2

4. $\quad + \quad - \quad \div \quad -$

GEOMETRY BELLRINGER

TUESDAY 5/6/14

1. FIND THE EQUATION OF THE LINE THAT GOES THRU $(-1, 3)$ & $(4, -6)$

2. THE LONGER LEG OF A 30° - 60° - 90° TRIANGLE IS 13. WHAT IS THE LENGTH OF THE HYPOTENUSE?

3. THE HYPOTENUSE OF A 30° - 60° - 90° TRIANGLE IS 7. WHAT IS THE LENGTH OF OF THE LONGER LEG?

4. WHAT IS THE LENGTH OF A DIAGONAL OF A SQUARE WITH SIDES OF LENGTH 8?

ALGEBRA 2 BELLRINGER WEDNESDAY 5/7/14 & THURSDAY 5/8/14

1.

: -2, 0, 9

2. FACTOR: -

3. SOLVE: - =

4. SOLVE: - - =

5. + - ÷ -2

GEOMETRY BELLRINGER

TUESDAY 5/8/14

1. FIND THE EQUATION OF THE LINE THAT GOES THRU (2, -3) & (-4, 6)

2. THE LONGER LEG OF A 30° - 60° - 90° TRIANGLE IS 6. WHAT IS THE LENGTH OF THE HYPOTENUSE?

3. THE HYPOTENUSE OF A 30° - 60° - 90° TRIANGLE IS 4. WHAT IS THE LENGTH OF OF THE LONGER LEG?

4. WHAT IS THE LENGTH OF A DIAGONAL OF A SQUARE WITH SIDES OF LENGTH 6?

ALGEBRA 2 BELLRINGER FRIDAY 5/9/14 & MONDAY 5/12/14

1.

: -4, 1, 3

2. SOLVE: - =

3. HOW MANY POSSIBLE RATIONAL ROOTS IN
THIS POLYOMIAL: + -

4. FIND THE ACTUAL RATIONAL ROOTS FOR THE
EQUATION IN #3

ALGEBRA 2 BELLRINGER TUESDAY 5/13/14 & WEDNESDAY 5/14/14

- FINISH #S 6, 7 & 12 ON HOMEWORK USING CALCULATOR

PRE CAL BELLRINGER
FRIDAY 5/9/14 & MONDAY
5/12/14

1. FIND THE DOMAIN & RANGE:

$$Y = \frac{\quad}{+}$$

2. FIND THE DOMAIN & RANGE:

$$Y = 3 + \sqrt{\quad}$$

GEOMETRY BELLRINGER

MONDAY 5/12/14

1. FIND THE EQUATION OF THE LINE THAT GOES THRU $(-2, 1)$ & $(-1, 5)$

2. THE LONGER LEG OF A 30° - 60° - 90° TRIANGLE IS 4. WHAT IS THE LENGTH OF THE HYPOTENUSE?

3. THE HYPOTENUSE OF A 30° - 60° - 90° TRIANGLE IS 2. WHAT IS THE LENGTH OF OF THE LONGER LEG?

4. WHAT IS THE LENGTH OF A DIAGONAL OF A SQUARE WITH SIDES OF LENGTH 3?

GEOMETRY BELLRINGER

WEDNESDAY 5/14/14

1. What is the slope of this line? $y = \frac{-}{\quad}x - 5$
2. What is the x-intercept of this line?
3. What is the y-intercept of this line
4. What is the equation of the line that is parallel to the line in #1 and goes thru the point (3, 2)?
5. What is the slope of the line that is perpendicular to the line in #1 and goes thru the point (5, 0)?

PRE CAL BELLRINGER
TUESDAY 5/13/14 & WEDNESDAY
5/14/14

1. FIND THE DIFFERENCE QUOTIENT:

(hint: PG 23 IN BOOK)

$$\left(\frac{\quad}{\quad} \right) = \quad + x - \quad$$

2

2. Find the relative min & the max for

(HINT: PG 33 IN BOOK)

$$f(x) = \text{---} -$$

3. Write the equation of the line perpendicular to this line $y = -2x - 3$ and goes thru the point $(-4, -2)$

(HINT: REMEMBER WHAT YOU LEARNED IN 8TH GRADE!!!)