

February 25, 2019, Monday

This is the EOC formula sheet for Geometry...

write down three eqns you have used before....

Define at least 5 of the variables in the eqns you have used...

	Board		
Barb	Kristley	Ella	Ms. Cole
Dylan	Pat	Levi	
Griselle	Michael	Pace	Ms. Winsor
Zander	Karla	Brandon	

Find your new seat, please!

Feb 13-7:55 AM

Geometry - Day 1, 4/10/2017

Distance, Parallel Slopes, Perpendicular Slopes

Find the distance d = $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

1) $(5, -1), (2, 4)$
 $d = \sqrt{(0-5)^2 + (-2-1)^2} = \sqrt{25+9} = \sqrt{34} = 5.83$

2) $(-8, 1), (-8, 2)$
 $d = \sqrt{(0-0)^2 + (1-2)^2} = \sqrt{1} = 1$

3) $(-8, 1), (-8, 2)$
 $d = \sqrt{(0-0)^2 + (1-2)^2} = \sqrt{1} = 1$

4) $(2, -2), (2, 6)$
 $d = \sqrt{(0-0)^2 + (2-6)^2} = \sqrt{16} = 4$

5) $(6, -7), (-5, 8)$
 $d = \sqrt{(11-6)^2 + (-15-8)^2} = \sqrt{25+324} = \sqrt{349} = 18.68$

6) $(-7, -1), (4, 2)$
 $d = \sqrt{(11-7)^2 + (3-1)^2} = \sqrt{16+4} = \sqrt{20} = 4.47$

7) $(-3, 0), (5, -1)$
 $d = \sqrt{(8-3)^2 + (-1-0)^2} = \sqrt{25+1} = \sqrt{26} = 5.1$

8) $(-7, -1), (4, 2)$
 $d = \sqrt{(11-7)^2 + (3-1)^2} = \sqrt{16+4} = \sqrt{20} = 4.47$

9) $(-1, -4), (4, -4)$
 $d = \sqrt{(5-1)^2 + (0-0)^2} = \sqrt{16} = 4$

10) $(-1, -4), (4, -4)$
 $d = \sqrt{(5-1)^2 + (0-0)^2} = \sqrt{16} = 4$

11) $(-1, 0), (0, -3)$
 $d = \sqrt{(1-0)^2 + (3-0)^2} = \sqrt{1+9} = \sqrt{10} = 3.16$

Feb 13-7:57 AM

Write the slope-intercept form of the equation of the line described.

1) through $(-1, 5)$, parallel to $y = 2x + 5$
 $m = 2$
 $y = m(x-h) + k$
 $5 = 2(-1) + b$
 $5 = -2 + b$
 $7 = b$
 $y = 2x + 7$

2) through $(1, 1)$, parallel to $y = 3x - 5$
 $m = 3$
 $y = m(x-h) + k$
 $1 = 3(1) + b$
 $1 = 3 + b$
 $-2 = b$
 $y = 3x - 2$

3) through $(1, -2)$, parallel to $y = -8x - 2$
 $m = -8$
 $y = m(x-h) + k$
 $-2 = -8(1) + b$
 $-2 = -8 + b$
 $6 = b$
 $y = -8x + 6$

4) through $(5, 4)$, parallel to $y = -\frac{1}{3}x + 3$
 $m = -\frac{1}{3}$
 $y = m(x-h) + k$
 $4 = -\frac{1}{3}(5) + b$
 $4 = -\frac{5}{3} + b$
 $11\frac{1}{3} = b$
 $y = -\frac{1}{3}x + 11\frac{1}{3}$

5) through $(-3, 0)$, parallel to $y = -x + 2$
 $m = -1$
 $y = m(x-h) + k$
 $0 = -1(-3) + b$
 $0 = 3 + b$
 $-3 = b$
 $y = -x - 3$

6) through $(-1, 2)$, parallel to $y = -7x + 3$
 $m = -7$
 $y = m(x-h) + k$
 $2 = -7(-1) + b$
 $2 = 7 + b$
 $-5 = b$
 $y = -7x - 5$

Identify x, y, m
 Substitute x, y, m into $y = m(x-h) + k$
 Solve for b
 Substitute m, b into $y = m(x-h) + k$

Feb 13-7:59 AM

7) through $(-1, 4)$, perp. to $y = -x + 4$

8) through $(-4, -5)$, perp. to $y = -2x + 4$

9) through $(2, -4)$, perp. to $y = \frac{2}{3}x + 2$

10) through $(-2, -2)$, perp. to $y = -\frac{2}{3}x - 2$

11) through $(-1, -2)$, perp. to $y = -\frac{1}{2}x + 5$

12) through $(1, -5)$, perp. to $y = \frac{1}{2}x + 5$

Feb 13-7:59 AM

Algebra 1

Distance, Parallel Slopes, Perpendicular Slopes

Find the distance between each pair of points.

1) $(6, -1), (-5, 6)$

2) $(4, 7), (-1, 5)$

3)

4)

Find the slope of a line parallel to each given line.

5) $y = \frac{1}{2}x + 4$

6) $x - y = -4$

Feb 13-8:01 AM

7) $-15 = 3y - 8x$

Find the slope of a line perpendicular to each given line.

8) $y = -4x + 4$

9) $5x - 5y = 0$

10) $0 = 6 - 4x + 2y$

Write the slope-intercept form of the equation of the line described.

11) through $(1, -2)$, parallel to $y = 2x - 1$

12) through $(-3, 3)$, perp. to $y = \frac{1}{2}x - 3$

Feb 13-8:01 AM

February 26, 2019, Tuesday

Find the slope of a line parallel to each given line.

1) $y = 6x - 4$ 2) $y = -4$

Find the slope of a line perpendicular to each given line.

3) $y = -9x + 4$ 1) $y = 6x - 4$ 2) $y = -4$

Find the slope of a line perpendicular to each given line.

4) $8x + y = 5$ 3) $y = -9x + 4$ 4) $y = \frac{7}{3}x + 3$

Find the slope of a line parallel to each given line.

5) $7x - y = 5$ 1) $y = 6x - 4$ 2) $y = -4$

Find the slope of a line perpendicular to each given line.

6) $7x - y = 5$

Feb 13-8:01 AM

Lesson 9: Partitioning a Line Segment
 Standard: G.GPE.A.1 Use coordinates to prove properties of geometric figures. Standard: G.GPE.A.6 Find the point on a directed line segment between two given points that partitions the segment in a given ratio.
 Essential Question: How can a line be partitioned? How do you find the point of a directed line segment that partitions the segment in a given ratio?

Point P divides \overline{AB} in the ratio 3 to 1.
 1. What does this mean? Prove it!

2. Do you expect point P to be closer to A or closer to B? Why?

3. How does the slope of \overline{AP} compare with slope of \overline{PB} ? Why?

Find the coordinate of point P that lies along the directed line segment from A(1, 4) to B(6, 10) and partitions the segment in the ratio of 3 to 2.

A directed line segment means the line segments have a direction associated with it, usually specified by moving from one endpoint to the other. In this case, from Point A to Point B, therefore point P must be between A(1, 4) and B(6, 10).

What does this tell you about the distance AP and PB in relation to AB?

- Label your points (x_1, y_1) and (x_2, y_2) .
- Note down the directed segment: **order does matter!**
- Convert the ratio into a percent (keep it a fraction): $\frac{a}{a+b}$
- Percent ratio: $\frac{3}{3+2} = \frac{3}{5}$
- Find the rise and run for the segment (order does matter):
 rise: $y_2 - y_1$, run: $x_2 - x_1$
- To find the partitioning point:
 1. x = coordinate of x_1 + $\frac{a}{a+b}$ (use the Fraction Form)
 2. y = coordinate of y_1 + $\frac{a}{a+b}$ (use the Fraction Form)

How can you use the distance formula to check that P partitions \overline{AB} in the ratio of 3 to 2?

Feb 13-8:03 AM

Example 1:
 Find the coordinates of the point P that lies along the directed segment from A(1, 1) to B(7, 3) and partitions the segment in the ratio of 1 to 4.

Coordinates of point which partitions a directed line segment AB at the ratio of a to b
 From $A(x_1, y_1)$ to $B(x_2, y_2)$

$$P(x, y) = \left(\frac{bx_1 + ay_2}{b+a}, \frac{by_1 + ay_2}{b+a} \right)$$

 OR

$$P(x, y) = \left(x_1 + \frac{a}{a+b}(x_2 - x_1), y_1 + \frac{a}{a+b}(y_2 - y_1) \right)$$

Example 2:
 Find the coordinate of the point P that lies along the directed segment from C(1, -2) to D(6, 1) and partitions the segment in the ratio 2 to 1.

Example 3:
 Find the coordinates of point P that lies along the directed line segment from M to N and partitions the segment in the ratio of 1 to 2.

_____ () _____

Feb 13-8:05 AM

Geometry - Day 2, 4/11/2017 Partitioning Line Segment HW Name _____

Directions: Find the partitioning point for each problem. You must show your work for all steps to receive credit.

- Given the point A(3, -2) and B(6, 1), find the coordinates of the point P on directed line segment AB that partitions AB in the ratio 2:1.
- Given the points A(-3, 4) and B(2, 0), find the coordinates of the point P on directed line segment AB that partitions AB in the ratio 2 to 3.
- Given the points A(-2, 5) and B(2, 3), find the coordinates of the point P on directed line segment AB that partitions AB in the ratio 4 to 1.
- Given the points A(5, 1) and B(-5, 3), find the coordinates of the point P on directed line segment AB that partitions AB in the ratio 1:3.
- Given the points A(-2, 1) and B(4, 5), find the coordinates of the point P on directed line segment AB that partitions AB in the ratio 5:2.
- Find the coordinates of P so that P partitions the segment AB in the ratio 5:1 if A(2, 4) and B(8, 10).

Feb 13-8:06 AM

- Find the coordinates of P so that P partitions the segment AB in the ratio 1 to 3 if A(-5, 4) and B(7, -4).
- Find the coordinates of P so that P partitions the segment AB in the ratio 3:4 if A(-9, -9) and B(5, -2).
- Find the coordinates of P so that P partitions the segment AB in the ratio 5 to 2 if A(-8, -2) and B(6, 19).
- Find the coordinates of P so that P partitions the segment AB in the ratio 7 to 2 if A(-5, 4) and B(-8, -2).

Find the point that partitions the segment with the two given endpoints with the given ratio.

- (3, 4) (7, 6) 1:1
- (-9, 3) (1, 8) 2:3
- (8, -5) (4, 7) 1:3
- (5, -4) (4, 5) 3:4

Feb 13-8:06 AM

February 27, 2019, Wednesday

Find the coordinates of P so that P partitions the segment AB in the ratio 5 to 2 if A(-8, -2) and B(6, 19).

Find the point that partitions the segment with the two given endpoints with the given ratio.

- (-3, 4) (7, 6) 1:1

Feb 13-8:06 AM

Geometry - Day 3 Name _____
© 2014 Edmentum - All rights reserved. Made with Infinite Geometry.

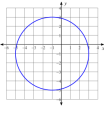
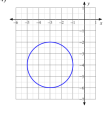
Equations of a Circle
Identify the center and radius of each.

1) $(x - 6)^2 + (y - 13)^2 = 16$ 2) $(x + 8)^2 + (y - 12)^2 = 22$
 3) $(x + 4)^2 + (y + 5)^2 = 64$ 4) $(x + 10)^2 + (y + 15)^2 = 11$
 5) $(x - 1)^2 + (y + 10)^2 = 36$ 6) $(x - 12)^2 + (y - 4)^2 = 9$

Use the information provided to write the equation of each circle.

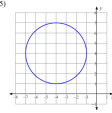
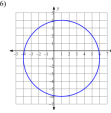
7) Center: (-9, 11) 8) Center: (15, -7) Radius: 4
 9) Center: (-13, 9) 10) Center: (15, -12) Radius: 2
 11) Center: (4, 2) 12) Center: (5, 6) Radius: 13

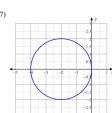
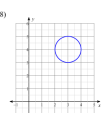
Use the information provided to write the equation of each circle in standard form, then convert to general form.

13)  14) 

© 2014 Edmentum - All rights reserved. Made with Infinite Geometry.

Feb 13-8:08 AM

15)  16) 

17)  18) 

© 2014 Edmentum - All rights reserved. Made with Infinite Geometry.

Feb 13-8:09 AM

Geometry - Day 3 Name _____ ID: 1
© 2014 Edmentum - All rights reserved. Made with Infinite Geometry.

TOTD - Parallel, Perpendicular, Partitioning, Equations of Circles
Write the slope-intercept form of the equation of the line described.

1) through (-2, -3), parallel to $y = -8x + 1$ 2) through (5, -1), perp. to $y = x + 3$

Identify the center and radius of each.

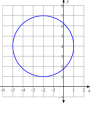
3) $(x + 4)^2 + (y - 6)^2 = 80$

Use the information provided to write the equation of each circle.

4) Center: (6, 9) Radius: 2

5) Find the coordinates of P so that P partitions the segment AB in the ratio 2:5 if A(-9, -9) and B(5, -2).

Use the information provided to write the equation of each circle in standard form, then convert to general form.

6) 

© 2014 Edmentum - All rights reserved. Made with Infinite Geometry.

Feb 13-8:10 AM

then SG.....

Geometry - Day 3 Name _____ ID: 2
© 2014 Edmentum - All rights reserved. Made with Infinite Geometry.

TOTD - Parallel, Perpendicular, Partitioning, Equations of Circles
Write the slope-intercept form of the equation of the line described.

1) through (-3, -2), parallel to $y = 2x + 1$ 2) through (3, -5), perp. to $y = \frac{1}{3}x - 5$

Identify the center and radius of each.

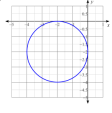
3) $(x - 13)^2 + (y + 7)^2 = 21$

Use the information provided to write the equation of each circle.

4) Center: (11, -4) Radius: 7

5) Find the coordinates of P so that P partitions the segment AB in the ratio 1:3 if A(5, 4) and B(7, -4).

Use the information provided to write the equation of each circle in standard form, then convert to general form.

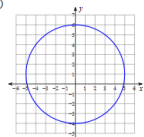
6) 

© 2014 Edmentum - All rights reserved. Made with Infinite Geometry.

Feb 13-8:11 AM

February 28, 2019, Thursday

Use the information provided to write the standard form equation of each circle.

1)  2) Center: (-1, -3) Radius: 13

$x^2 + (y - 1)^2 = 25$

Feb 13-8:12 AM

Unit 5 Name _____
© 2014 Edmentum - All rights reserved. Made with Infinite Geometry.

Is the point inside, outside, or on the circle?

EXAMPLE Use the Equation of a Circle
 The equation of a circle is $(x - 5)^2 + (y - 1)^2 = 9$. Without sketching the circle, tell whether the point is *on* the circle, *inside* the circle, or *outside* the circle.

a. (6, 0) b. (8, 2)

Solution
 Substitute the coordinates of the point into the equation.
 If the left side is *less than* the right side, the point is *inside* the circle.
 If the left side is *greater than* the right side, the point is *outside* the circle.

a. $(x - 5)^2 + (y - 1)^2 = 9$ b. $(x - 5)^2 + (y - 1)^2 = 9$
 $(6 - 5)^2 + (0 - 1)^2 \geq 9$ $(8 - 5)^2 + (2 - 1)^2 \geq 9$
 $1^2 + (-1)^2 \geq 9$ $3^2 + 1^2 \geq 9$
 $2 < 9$ $10 > 9$
 Because $2 < 9$, the point (6, 0) is *inside* the circle. Because $10 > 9$, the point (8, 2) is *outside* the circle.

Equation of a Circle The equation of a circle is $(x - 2)^2 + (y + 3)^2 = 4$. Tell whether the point is *on* the circle, *inside* the circle, or *outside* the circle. Use the example above as a model.

28. R(0, 0) 29. A(2, -4) 30. X(0, -3) 31. K(3, -1)
 32. M(1, -4) 33. T(2, -5) 34. D(2, 0) 35. Z(2.5, -3)

Feb 13-8:22 AM

Geometry _____ Name _____ ID: 1
 Unit 5 SG 1 _____ Date _____ Period _____

Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.

1) 2) (-5, 5), (-1, -5)

Write the slope-intercept form of the equation of the line described.

3) through: (-5, -2), parallel to $y = -\frac{4}{2}x + 4$ 4) through: (5, 2), perp. to $y = -\frac{5}{2}x + 5$

Find the slope of a line parallel to each given line.

5) $y = \frac{3}{2}x - 1$ 6) $x + 4y = 0$

Find the slope of a line perpendicular to each given line.

7) $y = \frac{1}{2}x + 1$ 8) $x + 2y = -6$

9) Partitioning: Given the points A(5, -1) and B(-5, 3), find the coordinates of the point P on directed line segment AB that partitions AB in the ratio of 1:3.

Find the midpoint of the line segment with the given endpoints.

10) (3, -6), (3, 0)

Given the midpoint and one endpoint of a line segment, find the other endpoint.

11) Endpoint: (4, -1), midpoint: (-6, -1)

Feb 13-8:26 AM

Geometry _____ Name _____ ID: 1
 Unit 5 SG 1 _____ Date _____ Period _____

Use the information provided to write the standard form equation of each circle.

1) Center: (10, 2)
 Radius: 6

Identify the center and radius of each. Then sketch the graph.

2) $(x + 1)^2 + (y + 2)^2 = 9$

Use the information provided to write the general conic form equation of each circle.

3) $x^2 + (y - 7)^2 = 9$

Use the information provided to write the standard form equation of each circle.

4)

Feb 13-8:27 AM

Geometry _____ Name _____ ID: 1
 Circles, writing in different equation forms _____ Date _____ Period _____

Identify the center and radius of each. Then sketch the graph.

1) $(x + 3)^2 + (y + 3)^2 = 4$ 2) $(x + 3)^2 + y^2 = 16$

3) $(x - 3)^2 + (y - 3)^2 = 9$ 4) $(x - 3)^2 + (y + 2)^2 = 4$

Feb 13-8:29 AM

Use the information provided to write the general conic form equation of each circle.

5) $(x - 14)^2 + (y - 1)^2 = 9$ 6) $(x - 15)^2 + (y - 2)^2 = 16$

7) $(x + 12)^2 + (y + 16)^2 = 4$ 8) $(x - 5)^2 + (y - 13)^2 = 36$

Use the information provided to write the standard form equation of each circle.

9) $x^2 + y^2 + 16x - 18y + 129 = 0$ 10) $x^2 + y^2 + 22x - 18y + 153 = 0$

11) $x^2 + y^2 + 24x + 10y + 120 = 0$ 12) $x^2 + y^2 + 8x + 14y + 61 = 0$

Feb 13-8:30 AM

13)

14)

15)

16)

Feb 13-8:30 AM

March 1, 2019, Friday

Copy the midpoint formula and the distance formula

Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.

Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.

1) (-5, -5), (0, 4)

Find the midpoint of the line segment with the given endpoints.

2) (-1, 2), (3, 2)

...quiz after distance & midpoint practice

Feb 13-8:30 AM

Geometry _____ Name _____ ID: 1
 Midpoints & Distances _____ Date _____ Period _____

Find the midpoint of the line segment with the given endpoints.

1) $(-5, 2), (0, 2)$ 2) $(1, 0), (2, 0)$

3) $(0, 6), (-4, -3)$ 4) $(-3, -6), (1, -1)$

5) $(1, 5), (-5, 5)$ 6) $(6, 2), (-3, -2)$

7) $(4, -2), (5, 1)$ 8) $(5, -3), (1, -3)$

Given the midpoint and one endpoint of a line segment, find the other endpoint.

9) Endpoint: $(-6, 1)$, midpoint: $(3, -2)$ 10) Endpoint: $(4, 4)$, midpoint: $(6, 0)$

11) Endpoint: $(-5, -3)$, midpoint: $(4, -4)$ 12) Endpoint: $(1, -5)$, midpoint: $(-2, 6)$

13) Endpoint: $(2, -1)$, midpoint: $(0, -1)$ 14) Endpoint: $(0, 1)$, midpoint: $(6, -1)$

15) Endpoint: $(5, 3)$, midpoint: $(4, 3)$ 16) Endpoint: $(2, 0)$, midpoint: $(0, -2)$

Feb 13-8:33 AM

Find the distance between each pair of points.

17) $(2, 6), (8, 5)$ 18) $(-8, 8), (0, 2)$

19) $(6, -1), (5, -5)$ 20) $(-7, -5), (-4, -8)$

21) $(4, 3), (5, -3)$ 22) $(7, -2), (0, -5)$

23) $(5, 6), (7, -1)$ 24) $(4, -3), (1, 3)$

25)

26)

27)

28)

Feb 13-8:33 AM

...quiz

Feb 13-8:33 AM

...

Feb 13-9:53 AM