

1) Get out a sheet of  
Paper

2) Title it: Midterm Review

3) Open Midterm Review Guide  
Assignment or Teams

Use the Study guide questions as a guide to  
create a cheat sheet

This sheet is a Cheat sheet  
that you get to use on the test

# QUIZZZ

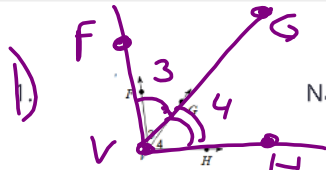
## Geometry S1 Midterm Review part 2

40 Questions

NAME : \_\_\_\_\_

CLASS : \_\_\_\_\_

DATE : \_\_\_\_\_



Name all the angles that have V as a vertex

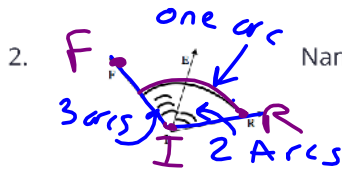
- A)  $\angle 3, \angle 4, \angle HGF$
- B)  $\angle 3, \angle 4, \angle FVH$
- C)  $\angle 3, \angle 4, \angle GFV$
- D)  $\angle 3, \angle 4, \angle VHG$

$\angle 3, \angle 4, \angle FVH$

Pivot Point  
Vertex: Point where angle is at  
Naming Angles: 3 points with vertex letter in middle

- a) B
- c) D

- b) C
- d) A

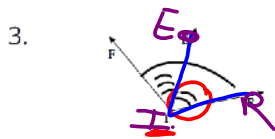


Name the angle with one arc

the marking to show which angles are equal

- a)  $\angle EIR$
- c)  $\angle RIE$

- b)  $\angle FIR$
- d)  $\angle FIE$



Name the angle with two arcs

- a)  $\angle FIR$
  - c)  $\angle FIE$
- $\angle EIR$   
or  $\angle RIE$

- b)  $\angle FER$
- d)  $\angle EIR$

4. A single angle that measures between 90 and 180 degrees.

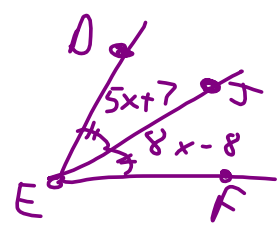
- a) Obtuse Angle
- b) Right Angle
- c) Acute Angle
- d) Linear Pair

5. A single angle that measures between 0 and 90 degrees.

- a) Right Angle
- b) Adjacent Angles
- c) Obtuse Angle
- d) Acute Angle

6. *Ray starts at E and goes towards and past J*  
 $\overline{EJ}$  bisects  $\angle DEF$ ,  $m\angle DEJ = 5x + 7$ ,  $m\angle JEF = 8x - 8$   
*cut into 2 equal parts*  
 Find x.

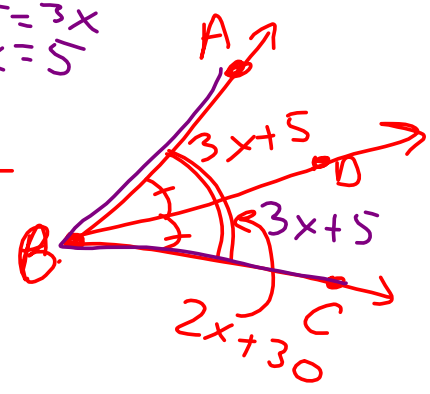
- a) 2
- b) 5
- c) 6
- d) 13



7. *ray split into 2 equal parts*  
 $\overline{BD}$  bisects  $\angle ABC$ ,  $m\angle ABD = 3x + 5$  and  $m\angle ABC = 2x + 30$ . Find  $m\angle DBC$ .

*Whole = part + part*  
 $m\angle ABC = m\angle ABD + m\angle DBC$   
 $2x + 30 = (3x + 5) + (3x + 5)$   
 $2x + 30 = 6x + 10$   
 $30 = 4x + 10$   
 $20 = 4x$   
 $x = 5$

- a)  $20^\circ$
- b)  $15^\circ$
- c)  $35^\circ$
- d)  $5^\circ$



8. What is the slope of the equation  $y = -2x - 1$

- a) -1
- b) -2x
- c) -2
- d) 2

*answer for x  
 Not angle*

*mb*

9. Find the slope and y - intercept =  $1/2x - 1$

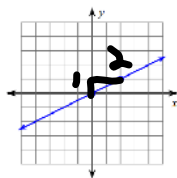
- a) slope: 2 y-intercept: 5
- b) slope:  $1/2x$  y-intercept: 1
- c) slope: 2 y-intercept: -1
- d) slope:  $1/2$  y-intercept: -1

*• point on y axis  
• where function crosses y axis*  $y = mx + b$

10. What is the y-intercept in the equation  $y = -2x + 0$

- a) 0
- b) 1
- c) -2
- d) -2x

11. Find the slope of the line. Hint: rise/run

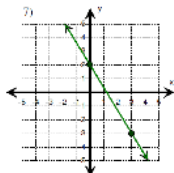


*Positive Slope*

*$m = \frac{1}{2}$*

- a)  $1/2$
- b) 2
- c) 0
- d)  $-1/2$

12. Find the slope. Hint: rise/run



*Negative slope*

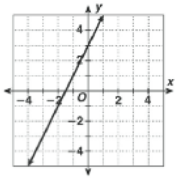
- a)  $-5/3$
- b)  $-3/5$
- c) 5
- d)  $5/3$

13. y - intercept is where the line \_\_\_\_\_.

- a) crosses the y-axis
- b) crosses the x-axis
- c) crosses each other
- d) begins

14. What does "m" represent in  $y=mx+b$ ?

- a) y-intercept
- b) slope
- c) standard form
- d) x-intercept

15.  What is the y-intercept.

- a) y-intercept -2
- b) y-intercept is -1
- c) y-intercept is -3
- d) y-intercept is 3

16.  Find the slope of the line.

- a) Undefined
- c) 0
- b) -1
- d) 2

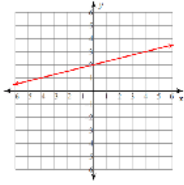
Handwritten notes for question 16:  
 $\begin{matrix} / & + & \backslash \\ & | & \\ \circ & \text{---} & \circ \\ & \text{---} & \\ & \text{---} & \end{matrix}$   
 $m = \text{Undefined}$   
 $\circ \text{---} \circ$   
 $m = 0$

17.  Find the slope of the line.

- a) Undefined
- c) 1
- b) -1
- d) 0

Handwritten notes for question 17:  
 $m = \frac{2}{0} = \text{can't } \div \text{ by } 0$   
 $\text{undefined}$

18.



Which equation matches the graph?

a)  $y = 2x - 3$

b)  $y = 2x$

c)  $y = 1/4 x + 2$

d)  $y = 1x + 4$

19. The Pythagorean Theorem ONLY works on which triangle?

 a) scalene

 b) right

 c) obtuse

 d) isosceles

20. Name the longest side of a right triangle.

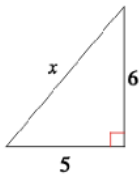
 a) hypotenuse

 b) leg b

 c) leg

 d) leg a

21.



Find the missing side

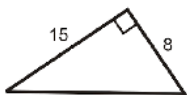
a)  $\sqrt{11}$

b)  $\sqrt{61}$

c) 11

d) 61

22.



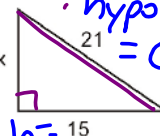
Determine the length of the missing side.

a) 23

b) 7

c) 17

d) 8

23.  Which equation can be used to solve for "x"?

long side across from 90° angle  
hypotenuse

$a^2 + b^2 = c^2$   
determine 'c' first

Pythagorean Theorem:  $a^2 + b^2 = c^2$   
 $x^2 + 15^2 = 21^2$

a)  $15^2 - 21^2 = x^2$

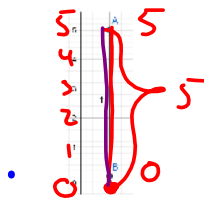
c)  $15^2 + x^2 = 21^2$

b)  $x^2 - 15^2 = 21^2$

d)  $15^2 + 21^2 = x^2$

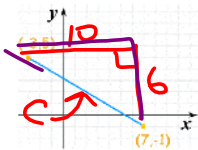
Right triangle

24. What is the distance between AB?



- a) 4
- b) 0
- c) undefined
- d) 5

25. Find the distance.

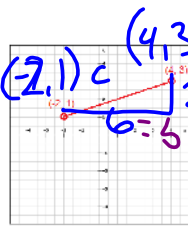


between points  
make a right triangle  
using rise and run  
distance is hypotenuse

- a) 9.7
- b) 12.7
- c) 11.7
- d) 10.7

$10^2 + 6^2 = c^2$

26. What is the distance between the two points?



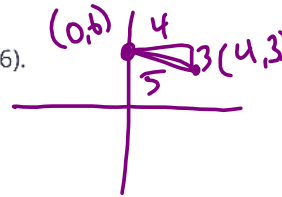
is hypotenuse of  
a right triangle  
made from rise  
and run

- a) 16
- c) 6.3
- b) 6.7
- d) 6.5

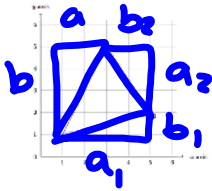
$a^2 + b^2 = c^2$   
 $2^2 + 6^2 = c^2$   
 $4 + 36 = c^2$   
 $\sqrt{40} = \sqrt{c^2}$   
 $c = 6.324$

27. Find the length of line segment AB given A(4, 3) and B(0, 6).

- a) 5
- b) 7
- c) 3
- d) 4

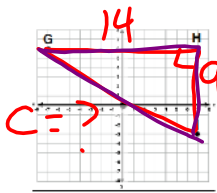


28. Calculate the length for each side of the triangle.



- a) AB = 3.6, BC = 4.5, AC = 4.1
- b) AB = 4.1, BC = 3.6, AC = 4.5
- c) AB = 4.1, BC = 5.6, AC = 7.5
- d) AB = 4.5, BC = 3.6, AC = 4.1

29. Points G, H, and I are plotted on the coordinate grid. What is the **perimeter** (in units) of the triangle that they form?



$S + S + S = \text{Perimeter}$   
 $14 + 9 + 16.64 = P$

$a^2 + b^2 = c^2$   
 $14^2 + 9^2 = c^2$   
 $196 + 81 = c^2$   
 $\sqrt{277} = c$   
 $c = 16.64$

- a) 63
- b) 16.64 = c
- c) 126
- d) 39.64 = P

30. Which equation best represents the relationship between x and y in the table shown?

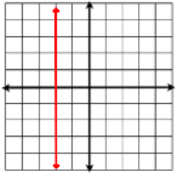
x	y
0	5
1	10
2	15
3	20
4	25
5	30

- a)  $y = 15x + 5$
- b)  $y = 5x + 5$
- c)  $y = 5x + 5$
- d)  $y = 10x + 5$

$m = \frac{\text{rise}}{\text{run}} = \frac{5}{1} = 5$

$b = 5$  b/c  $(0, 5)$   
 $x = 0$   
 $\text{so } b$



31.  What is the equation of this line?

- a) undefined  b)  $y = -2$   
 c) 0  d)  $x = -2$

32. Write the equation of a line PARALLEL to  $y = 2x + 3$  that passes through the point (3, 1).

- a)  $y = 2x + 1$   b)  $y = -\frac{1}{2}x + \frac{5}{2}$   
 c)  $y = 2x - 3$   d)  $y = 2x - 5$

33. Write the equation of a line PARALLEL to that passes through the point (3, 1).  $y = -\frac{5}{2}x + 10$

- a)  $y = -\frac{5}{2}x + \frac{17}{2}$   b)  $y = \frac{2}{5}x + 6$   
 c)  $y = -\frac{5}{2}x + 6$   d)  $y = \frac{2}{5}x + 8$

34. Write the equation of a line PERPENDICULAR to  $y = -2x + 1$  that passes through the point (2, 3).

- a)  $y = \frac{1}{2}x + 2$   b)  $y = -2x + 7$   
 c)  $y = -\frac{1}{2}x + \frac{1}{2}$   d)  $y = -2x + 8$

35. Write the equation of a line PERPENDICULAR to  $y = \frac{1}{3}x - 9$  that passes through the point  $(-6, 10)$ .

Step 1:  $m = \frac{1}{3}$   $m_{\perp} = 3$

Step 2:  $y = mx + b$   
 Find  $b$   
 $(10) = (3)(-6) + b$   
 $10 = 18 + b$   
 $-18 -18$   
 $-8 = b$

- a)  $y = -3x - 8$
- c)  $y = \frac{1}{3}x + 10$

- b)  $y = \frac{1}{3}x - 9$
- d)  $y = -3x + 6$

Slope is # in front of x

36. Select the two lines that are parallel. *needs same slope*

- a)  $y = 4x - 2$   $m = 4$
  - b)  $y = -4x + 1$   $m = -4$
  - c) None are parallel.
  - d)  $y = -\frac{1}{4}x$   $m = -\frac{1}{4}$
- $m = 4$  is not same as  $-4$  or  $-\frac{1}{4}$

37. Select the two lines that are perpendicular. *needs opposite sign*

- a)  $y = -4x + 1$   $m = -4$
  - c)  $y = 4x - 2$   $m = 4$
  - b) None are perpendicular. *reciprocal flipped fraction slope*
  - d)  $y = -\frac{1}{4}x$   $m = -\frac{1}{4}$
- $m_{\perp} = +\frac{1}{4}$   
 $m_{\perp} = -\frac{1}{4}$

38. Write the linear equation that is solved by both  $(-6, 2)$  and  $(0, 4)$ :

- a)  $y = (-1/3)x + 4$
- b)  $y = (1/3)x + 4$
- c)  $y = 3x + 4$
- d)  $y = -3x + 4$

$y = \frac{1}{3}x + 4$

Need  $m$  and  $b$   
 Step 1  $m = \frac{y_2 - y_1}{x_2 - x_1}$   
 Find  $m$   
 $m = \frac{2 - 4}{-6 - 0} = \frac{-2}{-6} = \frac{1}{3}$

39. What is the equation of the line that goes through the points  $(2, 9)$  and  $(3, 1)$ ?

- a)  $y = 8x - 5$
- b)  $y = -8x + 25$
- c)  $y = (1/8)x - 2$
- d)  $y = (-1/8)x + 1$

Step 2 *plug in a point's x & y and m*  
 Find  $b$   
 $y = mx + b$   
 $(2) = (\frac{1}{3})(-6) + b$   
 $2 = -2 + b$   
 $+2 +2$   
 $4 = b$

40. Write the equation of the line that passes through the points  $(-2, -1)$  and  $(0, 5)$ .

a)  $y = 3x - 5$

b)  $y = 3x + 5$

c)  $y = 1/3x + 5$

d)  $y = 1/3x$

Answer Key

- 1. a
- 2. b
- 3. d
- 4. a
- 5. d
- 6. b
- 7. a
- 8. c
- 9. d
- 10. a

- 11. a
- 12. a
- 13. a
- 14. b
- 15. d
- 16. c
- 17. a
- 18. c
- 19. b
- 20. a

- 21. b
- 22. c
- 23. c
- 24. d
- 25. c
- 26. c
- 27. a
- 28. b
- 29. d
- 30. c

- 31. d
- 32. d
- 33. a
- 34. a
- 35. a
- 36. c
- 37. c
- 38. b
- 39. b
- 40. b