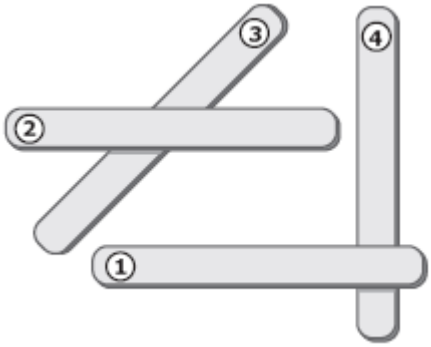
Chapter 3 PHS Packet

Multiple Choice **Name:** _____

Identify the choice that best completes the statement or answers the question.

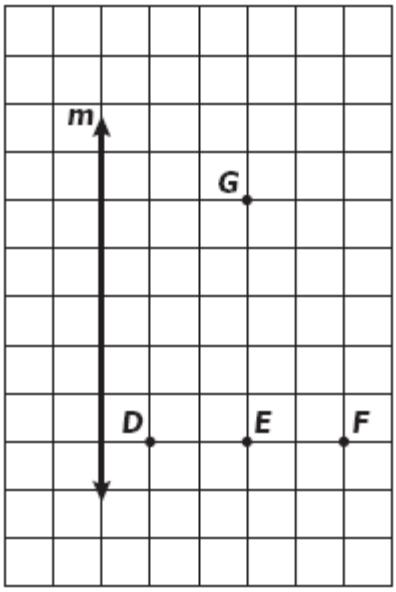
____ 1. Troy dropped some craft sticks on the floor as shown in the picture.



Which two craft sticks are best described as intersecting but not perpendicular?

a. 2 and 1 b. 4 and 3 c. 4 and 1 d. 2 and 3

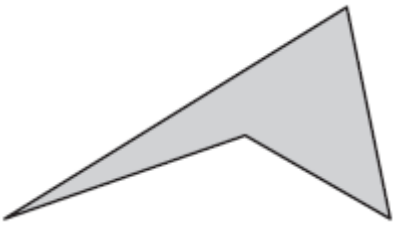
____ 2. Line m and four points are shown on the grid.

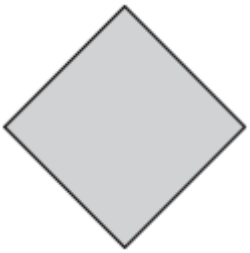


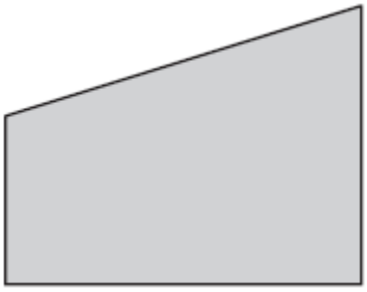
Which two points appear to lie on the same line that is parallel to line m?

a. G and D b. G and E c. D and E d. F and D

____ 3. Which figure appears to have only 1 pair of parallel sides?

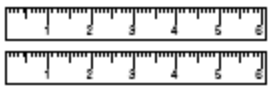
a. 

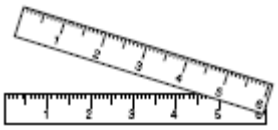
c. 

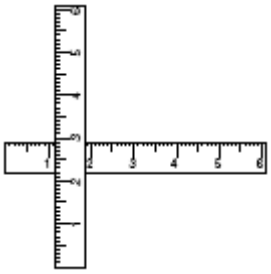
b. 

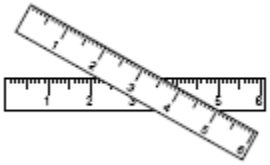
d. 

____ 4. Which pair of rulers is best described as perpendicular?

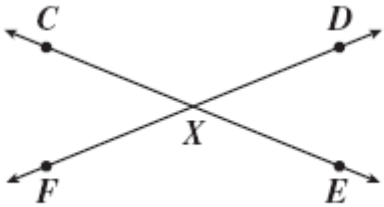
a. 

c. 

b. 

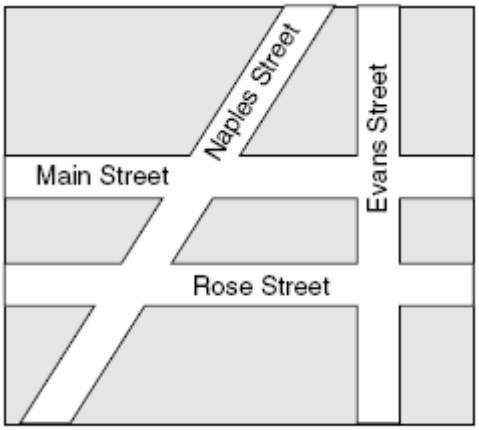
d. 

____ 5. If $\overleftrightarrow{CE}$ intersects $\overleftrightarrow{DF}$ at *X*, which angle must be congruent to $\angle CXD$?



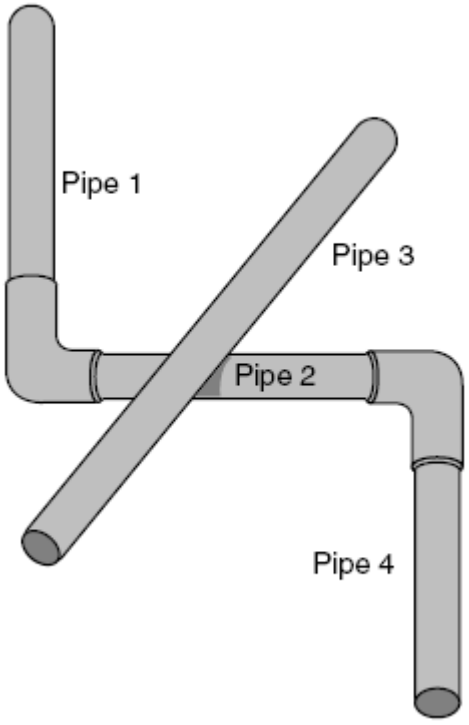
a. $\angle FXD$ b. $\angle FXE$ c. $\angle CXF$ d. $\angle DXE$

____ 6. On the map below, which two streets are best described as parallel?



a. Naples St and Evans St
b. Rose St and Evans St
c. Main St and Naples St
d. Main St and Rose St

____ 7. The diagram below shows a group of pipes in a basement. Which two pipes appear to be parallel?

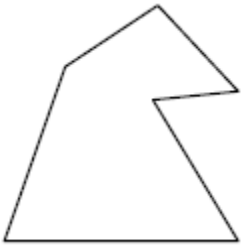


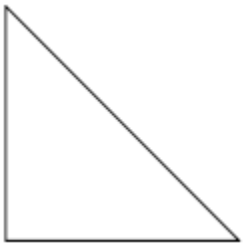
a. Pipes 1 and 4
b. Pipes 1 and 3
c. Pipes 2 and 3
d. Pipes 2 and 4

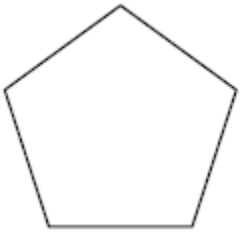
____ 8. What is the slope of the line $y = 4x - 2$?

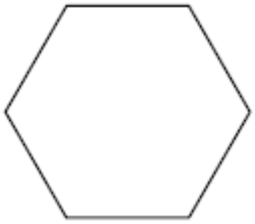
a. -2
b. 4
c. ¼
d. 2

____ 9. Which of the following has at least two sides that appear to be parallel?

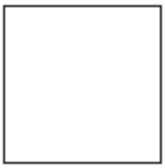
a. 

c. 

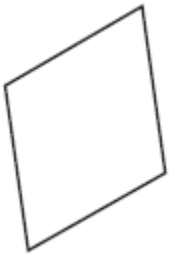
b. 

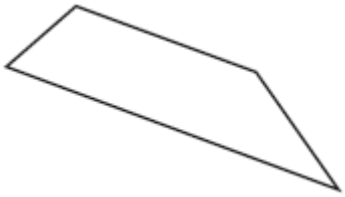
d. 

____ 10. Which figure appears to have exactly one pair of parallel sides?

a. 

c. 

b. 

d. 

____ 11. Which figure appears to have exactly one pair of parallel sides and two 90 angles?

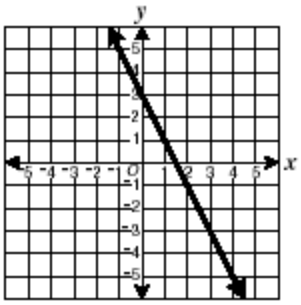
a. 

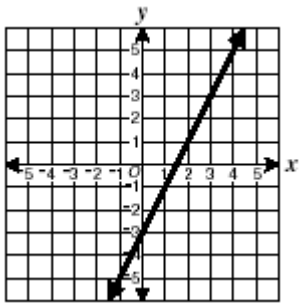
c. 

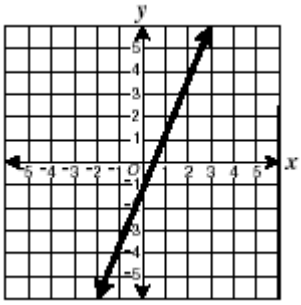
b. 

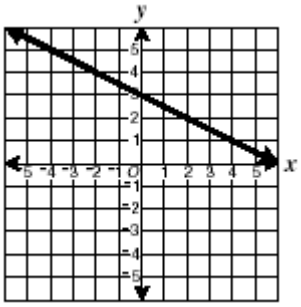
d. 

____ 12. Which of the following is most likely a graph of $y = -2x + 3$?

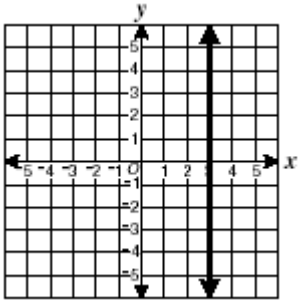
a. 

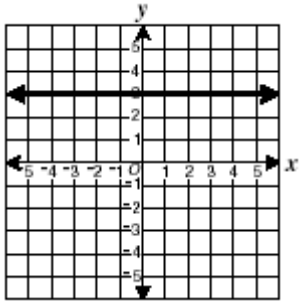
c. 

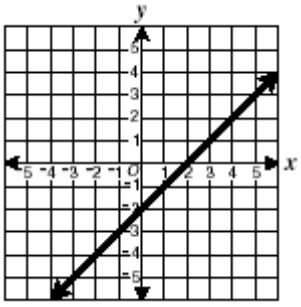
b. 

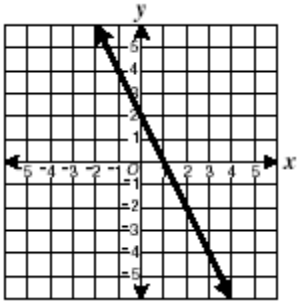
d. 

____ 13. Which of the following is most likely the graph of a line with a slope of zero?

a. 

c. 

b. 

d. 

____ 14. What is the slope of the line through (1, 1) and (4, -1)?

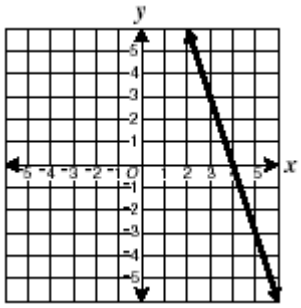
a. $-\frac{2}{3}$ b. $-\frac{3}{2}$ c. $-\frac{1}{5}$ d. $-\frac{2}{5}$

____ 15. Which is an equation for the line with a slope of $\frac{1}{2}$ that passes through the origin?

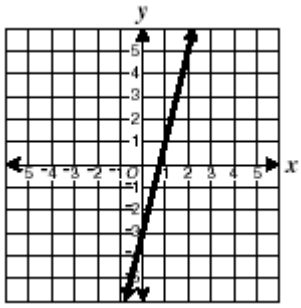
a. $y = \frac{1}{2}$ b. $x = 0$ c. $y = \frac{1}{2}x$ d. $y = 2x$

____ 16. Which graph best represents a line with a *y*-intercept of 4 and slope -3?

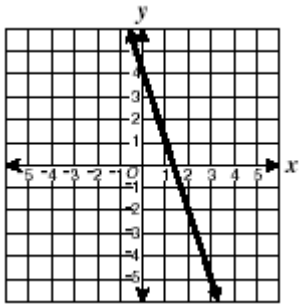
a.



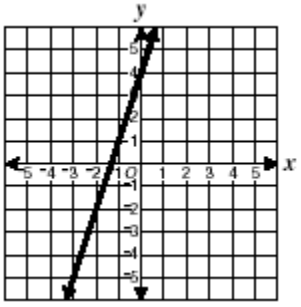
c.



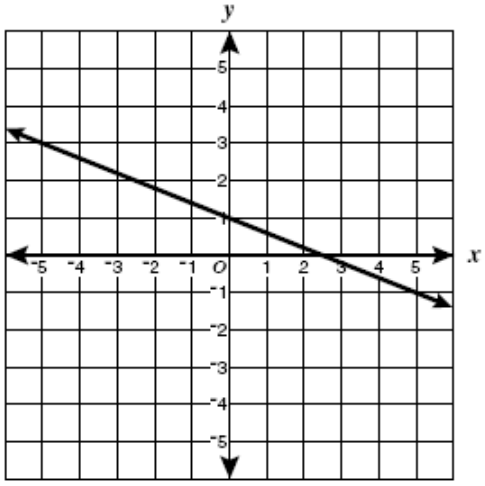
b.



d.



____ 17. What is the apparent slope of the line graphed to the left?

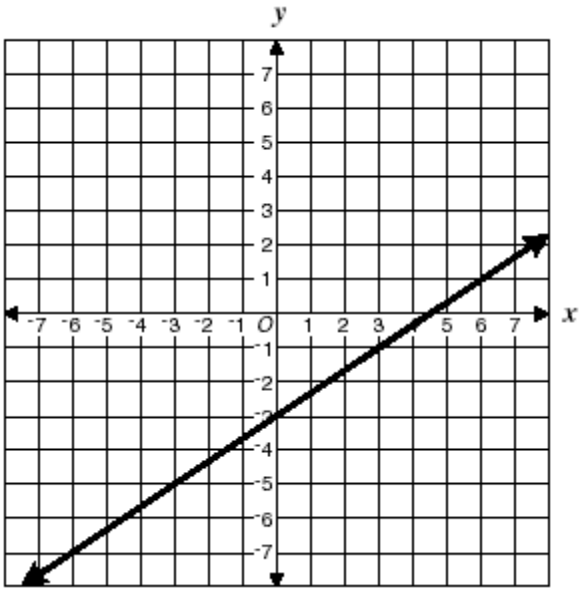


a. $\frac{5}{2}$ b. $\frac{-2}{5}$ c. $\frac{2}{5}$ d. $\frac{-5}{2}$

____ 18. Line *l* has slope 2 and goes through (1, 3). Which is one form of the equation for line *l* ?

a. $y = 2x + 1$ b. $y = x + 2$ c. $y = 2x + 5$ d. $y = 3x + 2$

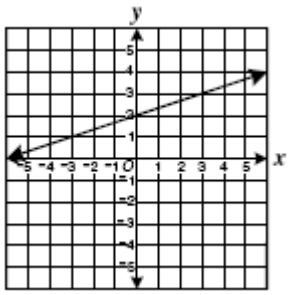
____ 19. Which equation most likely represents the line shown on the graph?



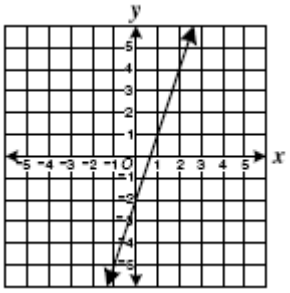
a. y = 3x + 3 b. $y = \frac{2}{3}x - 3$ c. $y = -\frac{2}{3}x - 3$ d. $y = \frac{3}{2}x + 3$

____ 20. Which graph best represents the line $y = \frac{1}{3}x - 2$?

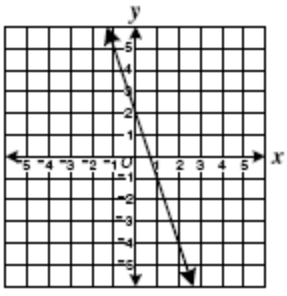
a.



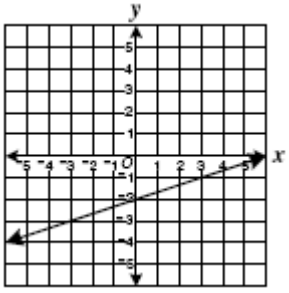
c.



b.



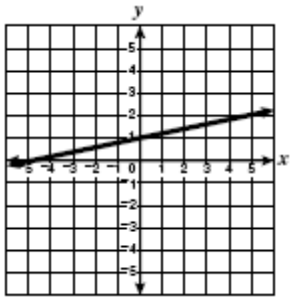
d.

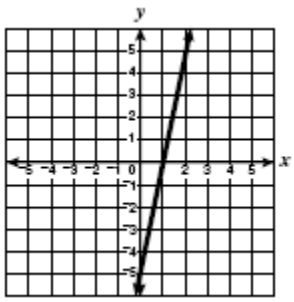


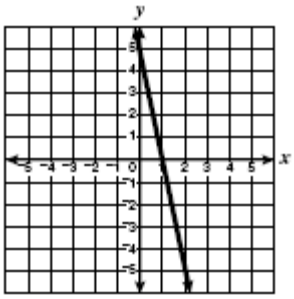
____ 21. What is the slope of the line that passes through the points (5, 0) and (10, 0)?

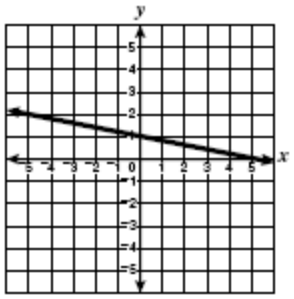
a. 0 b. 1 c. 5 d. Undefined

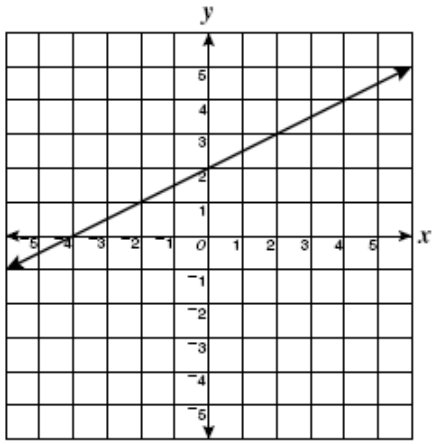
____ 22. Which line has a *y*-intercept of -5 and an *x*-intercept of 1?

a. 

c. 

b. 

d. 



____ 23. Which equation best represents the line shown?

a. $y = x + 2$ b. $y = 2x + 2$ c. $y = 2x + 1$ d. $y = \frac{1}{2}x + 2$

____ 24. What is the slope of the line through (3, 2) and (-1, -4)?

a. $\frac{-3}{2}$ b. $\frac{3}{2}$ c. 3 d. $\frac{2}{3}$

____ 25. Which is an equation for the line with slope = $\frac{1}{2}$ and y-intercept of 3?

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

Student Notes Quiz

Look through your chapter 3 notes and find the answers to the following questions:

1. Lines that do not intersect and are not coplanar are _____.
2. Lines that do not intersect and are coplanar are _____.
3. _____ angles are outside the two lines.
4. _____ angles are inside the two lines.
5. _____ _____ angles are inside the lines and on the same side of the transversal.
6. _____ _____ angles are inside the lines and on opposite sides of the transversal.
7. _____ _____ angles are outside the lines and on opposite sides of the transversal.
8. _____ angles have one inside and one outside the lines and on the same side of the transversal.
9. Name the special angle types that are congruent (have the same measure)
   _____ _____ _____
   _____
   _____
10. Name the special angle type that is supplementary: _____ _____
11. Slope is defined to be: (fill in the blanks – missing things)

$$m = \frac{y2 - y1}{\quad} = \frac{\quad}{\Delta x} = \frac{\text{rise}}{\quad}$$

12. Parallel lines have the _____ slope.
13. Perpendicular lines slopes, when multiplied together, equal _____.
14. Write the slope intercept form of a line: _____
15. Write the point slope form of a line: _____
16. To prove parallel lines name the special angle types that have the same measure
    _____ _____ _____
    _____
    _____
17. To prove parallel lines name the special angle type that has to be supplementary:
    _____ _____