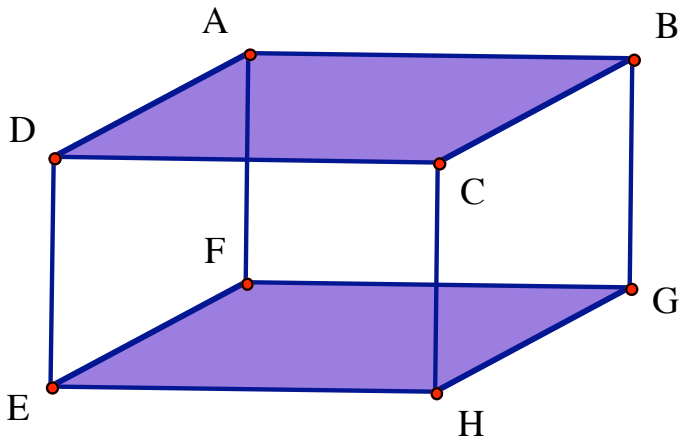
Chapter 2: Perpendicular / Parallel
Lesson 2-3: Pairs of Lines
Homework

name _____
date _____
period ___



Refer to the above labeled figure.

1. Name all the planes parallel to plane ABC._____

2. Name all segments that intersect $\overline{AB}$._____

3. Name all segments parallel to $\overline{FG}$._____

4. Name all segments that are skew to $\overline{EF}$._____

5. Name two transversals for parallel lines $\overleftrightarrow{CD}$ and $\overleftrightarrow{EH}$._____

Complete.

6. Line *b* has a slope of $\frac{3}{5}$.

a. The slope of any line parallel to *b* equals _____.

b. The slope of any line perpendicular to *b* equals _____.

7. Line *j* has a slope of -3.

a. The slope of any line parallel to *j* equals _____.

b. The slope of any line perpendicular to *j* equals _____.

8. A given line is vertical.

a. The slope of the given line is _____.
(0/not defined)

b. The slope of a line perpendicular to the given line is _____.
(0/not defined)

9. A given line rises to the right.

a. The slope of the line is _____.
(positive/negative)

b. The slope of the line perpendicular to the given line is _____.
(positive/negative)

The slopes of the lines are given. Are the lines parallel, perpendicular, or neither?

10. $\frac{2}{3}$ and $\frac{8}{12}$ ans = _____

11. 2 and -2 ans = _____

12. $\frac{5}{3}$ and $-\frac{3}{5}$ ans = _____

13. $\frac{2}{9}$ and $\frac{9}{2}$ ans = _____

Given: Points W(-4, -3), X(-5, 8), Y(6, 9), and Z(7, -2).

14. The slope of $\overleftrightarrow{WX}$ is _____.

15. The slope of $\overleftrightarrow{YZ}$ is _____.

16. The slope of $\overleftrightarrow{XY}$ is _____.

17. Do you think $\overleftrightarrow{WX}$ and $\overleftrightarrow{YZ}$ are parallel lines? _____

18. Describe lines XY and WX. _____

State whether the two lines are parallel, perpendicular or neither.

19. y = 3x + 2; y = 3x + 5

ans = _____

20. y = -2x -6; y = 2x +6

ans = _____

21. y = 4x + 1; $y = -\frac{1}{4}x + 4$

ans = _____

22. y - 2x = 8; 2x - y = 4

ans = _____