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Unit 3- Worksheet \#4: Slopes of Lines
Describe the slopes of the given lines (positive, negative, zero, no slope/undefined)
1.

2.

3.

4.


Find the slope of the line that passes through the points. Show your work.
5. $(3,5)$ and $(5,6)$
6. $(-5,-1)$ and $(3,-1)$
7. $(2,1)$ and $(0,6)$

Find the slope of the line that passes through the points.
8.

9.

10.

11. What happens when you apply the slope formula to a horizontal line? What happens when you apply it to a vertical line?

Describe and correct the error in finding the slope of the line.
12. $m=\frac{4}{3}$

13. Slope of the line through
$(2,7)$ and $(4,5)$
$m=\frac{y_{2}-y_{1}}{x_{2}-x_{1}}=\frac{7-5}{4-2}=\frac{2}{2}=1$

Tell whether the lines through the given points are parallel, perpendicular or neither. Justify your answer.
14. Line 1: $(1,0)$ and $(7,4)$

Line 2: $(7,0)$ and $(3,6)$
15. Line 1: $(-3,1)$ and $(-7,-2)$

Line 2: $(2,-1)$ and $(8,4)$

Find the slope of the line $n$ parallel to line $h$ and passing through point P . Then graph line $n$.
16.

Slope of $h=$ $\qquad$

Slope of $n=$ $\qquad$

17.

Slope of $h=$ $\qquad$

Slope of $n=$ $\qquad$


Find the slope of the line $n$ perpendicular to line $h$ and passing through point P . Then graph line $n$.
18.

Slope of $h=$ $\qquad$

Slope of $n=$ $\qquad$
19.

Slope of $h=$ $\qquad$


Graph a line with the given description. Show your work when finding slope.
20. Through $(0,2)$ and parallel to the line through $(-2,4)$ and $(-5,1)$

21. Through $(1,3)$ and perpendicular to the line through $(-1,-1)$ and $(2,0)$


