

1. What is the slope of the line $y = -3x + 1$? _____ What is the slope of a line parallel to this line? _____

What is the slope of the line perpendicular to this line? _____

2. What is the slope of the line perpendicular to $y = \frac{2}{3}x + 8$?

3. Provide an equation for a perpendicular to the line $y = \frac{4}{5}x + 4$.

4. Write the equation for the line that passes through points (2, 5) & (-2, 4).

5. Write the equation of a line that is parallel to the line $y = 3x - 3$.

6. Write the equation of the line that is parallel to $y = x - 1$ and passes through the point (2, 6).

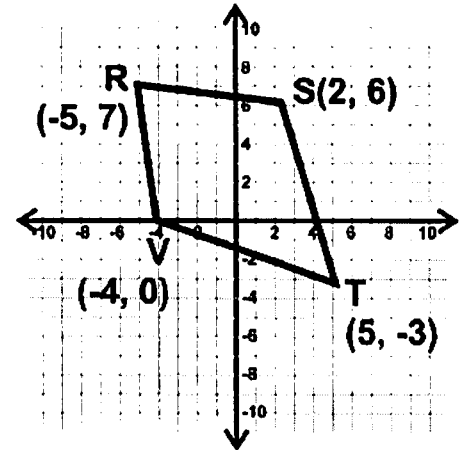
7. Write the equation of a line that is perpendicular to the line $y = 8x + 7$.

8. What is the slope of the line that passes through points (8, 0) & (-2, 4)? Write the equation of the line.

9. What is the distance between (3, -3) & (7, 2)? Write the equation of the line that passes through these points.

10. What is the perimeter of a triangle with vertices $(-1, 3)$, $(0, 4)$, & $(0, 3)$?

11. Find the perimeter of quadrilateral RSTV.



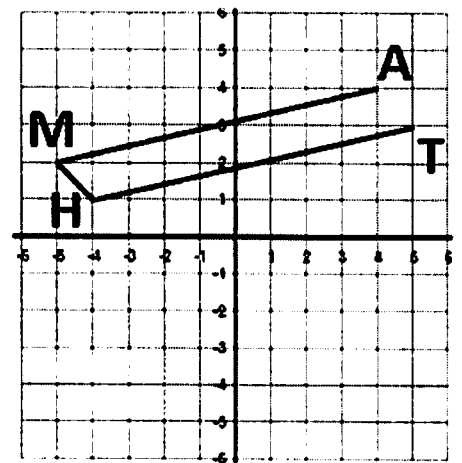
12. Find the area of quadrilateral RSTV.

13. Find the midpoint of the segment with endpoints at $(1, 4)$ & $(4, 6)$.

14. Partition the segment with endpoints at $(-2, 3)$ & $(10, 6)$ at a ratio of 1:2.

15. Partition the segment with endpoints $(12, 12)$ & $(-3, 2)$ at a ratio of 1:4.

16. Write the equation of the line that would complete the parallelogram MATH. Then, find its perimeter and area.



17. Are the lines that pass through $(3, -1)$ & $(4, 2)$ and $(1, 1)$ & $(-3, 4)$ parallel, perpendicular, coincidental, or none?