

• Student Portion •

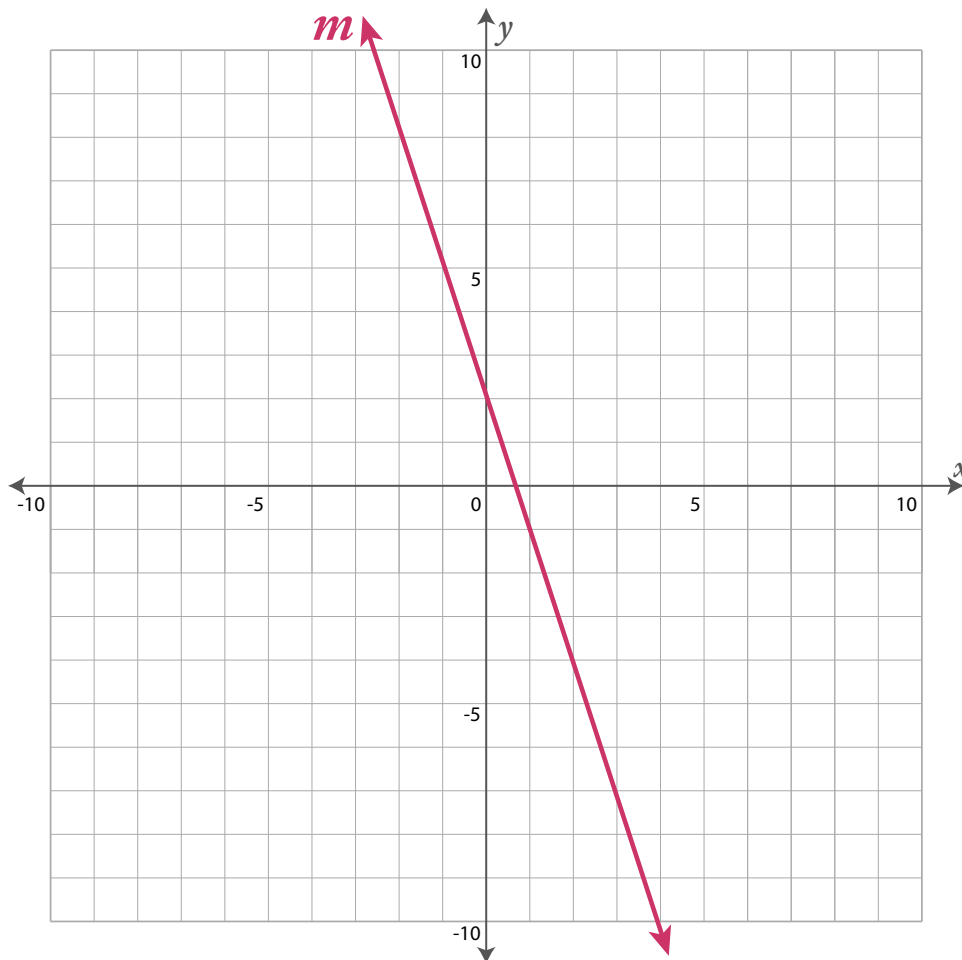
DIRECTIONS:

- ➔ Read each item carefully.
- ➔ Follow the directions to solve each problem.
- ➔ Circle your final answer(s).

1. Simplify: $\sqrt{49x^6}$ Assume that x is a positive number.

2. Solve for x : $8 = 0.03x + 2.6$

3. Study this graph. Then write the equation of line m .



4. Write the equation of a line that is perpendicular to the graph of the line created by $y = -4x - 1$ and goes through the point $(0, -1)$.

5. Find values for x and y that satisfy both equations.

$$x + y = 8$$

$$2x - y = 7$$

6. Find three consecutive even integers such that the sum of the first and second integers equals three times the third integer.

7. Multiply: $(2x + 3)(x - 5)$

8. Factor completely: $4x^2 - 36$

9. Solve for x : $2x^2 + 8x - 6 = -12$

10. Simplify: $(81^{\frac{1}{2}})^{-3}$

11. Write the ratio you would use to convert 5.2 meters to centimeters.

12. An average dust mite is 0.00025 meters long. Write this number in scientific notation.