Sample Lesson

1. The graphs of which two equations will be parallel? How do you know?

   A) $y = 3x + 4$ B) $y = 9x + 4$ C) $y = 3x - 12$ D) $y = -3x + 12$

2. Convert the following to fractions.

   A) -0.006 B) 17.3 C) $100\frac{3}{5}$ D) 0.66

3. $(3.1 \times 10^{-3})(4.6 \times 10^{5}) = ?$ Write the product in scientific notation.

4. Write the mixed number $-8\frac{3}{5}$ as a fraction in its simplest form. Is it a rational or irrational number?

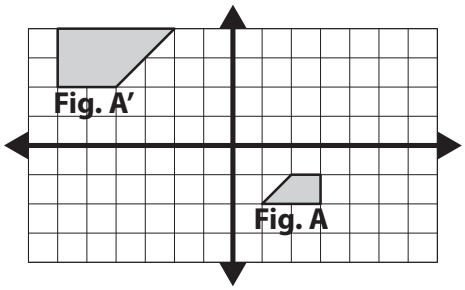
5. A and B are linear functions. Compare their slopes. Which is greater?

6. A ladder leans up against the wall. The bottom of the ladder is five feet away from the wall and the top of the ladder is twelve feet up the wall. Find the length of the ladder.

7. Find the slope by calculating $\frac{\text{rise}}{\text{run}}$.

8. You can write 35,000,000 as 35×10^{6}, but it is not in correct scientific notation because the first number, 35, is not between 1 and 10. Which expression is the correct scientific notation for 35,000,000?

9. Determine whether the shapes are similar. If not, write *not similar*. If they are, describe one possible set of transformations that may have occurred.



10. Simplify using exponential notation: $-5^{3} \times -5^{4} = ?$

11. Determine if the shapes are congruent, and if so, what transformations have occurred. If not, why not?

12. Solve. $4(s - 2) = 6s$

1.

2.

3.

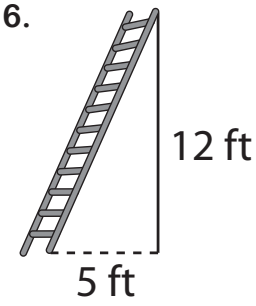
4.

5.

A) $y = 0.17x + 2$

B) For every glass of lemonade that is sold, Jake earns $0.75.

6.



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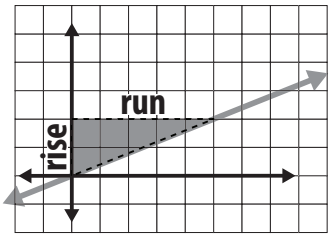


8.

A) 350×10^5

B) 3.5×10^7

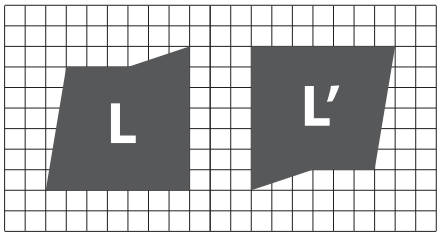
C) 0.35×10^8

D) 3.5×10^6

9.

10.

11.



12.