

Name

Spiral Review 15

Directions: Show your work for credit. Use your notes and textbook for support

1. Which equation represents a linear function?

a. $y = x^2$

c. $y = 1 - \frac{4}{3}x$

b. $y = 10 + \frac{5}{6}x^3$

d. $y = \frac{1}{x} + 2$

2. How many solutions does the equation $4a + 12 + 2a = 6(a + 2)$ have?

- a. Infinitely many solutions
- b. One solution
- c. No solutions
- d. The number of solutions cannot be determined.

Show your work

3. Due to plate tectonics, the summit of Mount Everest moves about 4.5×10^{-3} meters northeastward in one year. How many millimeters did the summit of Mount Everest move in 11 years? Express your answer in scientific notation.

- A 4.5×10^{-2} millimeters
- B 4.95×10^{-2} millimeters
- C 4.95×10 millimeters
- D 8.55×10^2 millimeters

Show your work



4. How many solutions does the following equation have?

$$7x + 9 = \frac{1}{2}(8x - 12)$$

Show your work

- A** no solutions
- B** infinitely many solutions
- C** one solution, $x = -\frac{21}{5}$
- D** one solution, $x = -5$

5.

- a. Graph rectangle $J'K'L'M'$, the image of rectangle $JKLM$, after a translation of 1 unit right and 9 units up.
- b. Find the area of each rectangle.

- c. Is it possible for the area of a figure to change after it is translated? Explain.

