

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

1 meter = 1,000 millimeters

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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. Luke's family goes to the movies and purchases a large popcorn. They are debating whether or not to purchase any drinks. The table below shows how much they'll spend based on the number of drinks they decide to purchase.



Number of Drinks	Total Cost
0	\$6.25
1	\$10
2	\$13.75
3	\$17.50
4	\$21.25

What is the slope? _____

What is the y-intercept? _____

Write an equation: _____