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linear equation word problem

1.Felipe is saving money for a class trip. He already has saved $250 that he will put toward the trip. To save more money for the trip, Felipe gets a job where each month he can add $350 to his savings for the trip. Let m be the number of months that Felipe has worked at his new job. If Felipe needs to save $2700 to go on the trip, which equation best models the situation?

A. 250m−350=2700
B. 250m+350=2700
C. 350m−250=2700
D. 350m+250=2700

2.Rani is a real estate agent. For each house she sells, she pays $100 in fees, but earns a commission of 1.8% of the selling price of the house. Rani's total profit from a particular house is $4,580. If p represents the selling price of the house, which equation best models the situation?

A. $0.018p-100=4580$
B. $0.018p+100=4580$
C. $(100-0.018)p=4580$
D. $(100+0.018)p=4580$

3.A rectangular garden has a length of 60 feet (ft), a width of w ft, and a perimeter of 200 ft. Which of the following equations best models the garden's perimeter?

A. 60+w=200
B. 60+2w=200
C. 120+w=200
D. 120+2w=200

4.A barber offers two options at his barbershop: a $15.00 regular haircut and a $20.00 deluxe haircut that includes a shave. On a certain day, the barber gave 3 fewer deluxe haircuts than he did regular haircuts, h, and earned $500.00 in total from the two kinds of haircuts. Which of the following equations best models this situation?

$15.00h+20.00(h-3)=500.00$

$15.00h+20.00(h+3)=500.00$

$15.00(h-3)+20.00h=500.00$

$15.00(h+3)+20.00h=500.00$

5.The mass of a liquid solution is 25 grams (g) and its volume is 40 milliliters (ml). A second liquid solution has the same density ($\frac{g}{ml}$) and a volume of 200 ml. Which of the following equations best models the mass in grams, mm, of the second liquid solution?

A. $200m = (25)(40)$

B. $200m = \frac{25}{40}$

C. $\frac{8}{5} = \frac{m}{200}$

D. $\frac{5}{8} = \frac{m}{200}$

6.Two interior angles of a triangle are complementary. The measure of the first angle is half the measure of the second angle, which has a measure of xx degrees. Which of the following equations best models the sum of the interior angles of this triangle?

x+2x+90=180

A. $\frac{x}{2}$+x+90=180

B. $\frac{1}{2}$(x+2x+90)=180

C. $\frac{x}{2}$+x+2x=180

7.The number of subscribers to a certain newspaper decreases by about 2,000 each year. In 2010, there were 19,000 subscribers. In what year should the newspaper expect to have approximately 7,000 subscribers?

8.An airplane begins its descent to land from a height of 35,000 feet (ft) above sea level. The airplane's height changes by about −4000 ft every 3 minutes. Rounded to the nearest minute, in approximately how many minutes will the plane land? Assume that the airport runway is at sea level.

9.As an object's depth below the surface of a body of salt water increases, so does the pressure acting on the object due to atmospheric and water conditions. The rate at which pressure increases is approximately 11 pounds per square inch (psi) for every increase in depth of 25 feet (ft). The pressure at the surface of the water is 15 psi. Rounded to the nearest foot, at what depth will the pressure acting on the object be 50 psi?

10.A meteorologist estimates that on a sunny day, the air temperature decreases by about 4° F for every 1,000 feet (ft) of elevation gain. On a certain day, the air temperature outside an airplane flying above Seattle is −58° F, and the ground level temperature in Seattle is 70° F. If x is the height, in feet, at which the plane is flying, which of the following best models the situation?

A. $70 = -\frac{4}{1,000}x - 58$

B. $70 = \frac{4}{1,000}x - 58$

C. $-58 = -4x + 70$

D. $-58 = 4x + 70$

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Thanks

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