

Beverly Hills High School -- Algebra A -- Quest #4 -- Chapter 2 -- 70 points

Pencils only. Show all your work. Partial credit for partial performance. Label all answers that need them. Simplify all answers. All problems are worth five points unless specified otherwise.

Solve all equations for x, y or z as indicated in each example.

1) $tx + k = 3n$

2) $ay + j = py - m$

3) $\frac{z}{3} - \frac{t}{b} = a$

4) A man invests \$8000 for 6 years. He earns simple interest of \$1320. At what rate did he earn interest?

5) Sometimes the surface of Venus can be as hot as 950 °F. What is that in °C?

6) A woman has a circular garden that has a border of decorative bricks. If the border is 26.8 ft, what is the radius of her garden?

7) A huge right triangle has legs of 80 m and 150 m. What is the area of the triangle? What is the hypotenuse of the triangle?

8) A pump can empty your swimming pool at a rate of 50 L per minute. How many gallons per hour is that, if there are 3.785 L in one gallon?

9) How many seconds are in one year?

Solve each proportion for the indicated variable.

10) $\frac{2y - 5}{26} = \frac{5y + 3}{96}$

11) $\frac{-4x + 3}{7} = \frac{-2x + 4}{4}$

12) $\frac{t}{-2.63} = \frac{15.7}{22.6}$

13) What are the odds of rolling a total of ten on two six-sided dice?

14) What was the main point of the probability lab experiment? _____

_____.

15) The world record for running the mile is 3 minutes, 43.13 seconds. On average how many miles an hour is that speed?