Algebra II   Name_____
Chapter 8 Quiz Review   Date_____ Period_____

1) If y varies diectly as x, and $y = 2$ when $x = 20$, find x when $y = 7$.

2) If s is directly proportional to t, and $s = 6$ when $t = 4$, find t when $s = 12$.

3) If p is directly proportional to q, and $p = 3$ when $q = 6$, find q when $p = 26$.

4) If y varies directly as x, and $y = 80$ when $x = 16$, find x when $y = 90$.

5) If x varies directly as $y + 10$, and $x = 125$ when $y = 15$, find x when $y = 40$.

6) If a varies directly as b^2, and $a = 294$ when $b = 7$, find a when $b = 15$.

7) If p varies inversely with q, and $p = 4$ when $q = 5$, find q when $p = 10$.

8) If x varies inversely with y, and $x = 6$ when $y = 18$, find y when $x = 3$.

9) If p varies inversely as the square root of q, and $p = 28$ when $q = 49$, find p when $q = 16$.

10) If z is jointly proportional with x and y, and $z = 12$ when $x = 3$ and $y = 2$, find z when $x = 4$ and $y = 5$.

11) If z is jointly proportional with x and y, and $z = 28$ when $x = 2$ and $y = 7$, find z when $x = 6$ and $y = 2$.

12) If f varies jointly as g and the cube of h, and $f = 1280$ when $g = 5$ and $h = 4$, find f when $g = 3$ and $h = 6$.

13) If the sales tax on a $75 purchase is $15, what would it be on a $250 purchase?

14) A public-opinion poll found that of a sample of 500 voters, 125 favored a school bond measure. If 30,000 persons vote, about how many are likely to vote for the bond measure?

15) The frequency of a radio signal varies inversely as the wave length. A signal of frequency 1800 kilohertz, which might be the frequency of an AM radio station, has wave length 300 m. What frequency has a signal of wave length 900 m?

16) By Ohm's Law, the current flowing in a wire is inversely proportional to the resitance of the wire. If the current is 9 amperes when the resitance is 14 ohms, for what resitance will the current be 42 amperes?