

Word problem equations

3) Pythagorean Theorem: $12^2 + x^2 = (4\sqrt{10})^2$

5) Surface area of a cube: $SA = 6s^2 : 6(x-4)^2 = 864$

8a) $56 = -16t^2 + 64t$ which is $-16t^2 + 64t - 56 = 0$

8b) Find the x-coordinate of the vertex

8c) Find the y-coordinate of the vertex

9) Consecutive Integers: $x(x+2) = 99$

10) Area: $x(3x - 16) = 35$

11) Pythagorean Theorem: $x^2 + (x + 2)^2 = (x + 4)^2$

13) Consecutive Integers: $4(x + x + 1 + x + 2) = 2(x + 1)(x + 2)$

***Don't forget to multiply binomials correctly!

$$(x + 3)^2 = x^2 + 6x + 9$$

Consecutive Integers: $x, x + 1, x + 2, x + 3, \dots$

Consecutive even OR odd integers: $x, x + 2, x + 4, x + 6, \dots$ (these skip $x + 1, x + 3, x + 5, \dots$)