

FACTOR THE POLYNOMIALS

1. $-3m^2 + 48n^2$

$$-3(m^2 - 16n^2)$$

$$-3(m - 4n)(m + 4n)$$

2. $49a^2 + 14a + 1$

$$(7a + 1)(7a + 1)$$

$$(7a + 1)^2$$

6. $-9c^2 = -16$

$$\begin{array}{r} +16 \\ +16 \end{array}$$

$$-9c^2 + 16 = 0$$

$$-(9c^2 - 16) = 0$$

$$-(3c - 4)(3c + 4) = 0$$

$$c = -\frac{4}{3}, \frac{4}{3}$$

SOLVE

3. $x^2 + 8x + 16 = 0$

$$(x + 4)(x + 4) = 0$$

$$x = -4$$

4. $4w^2 - 36 = 0$

$$4(w^2 - 9) = 0$$

$$4(w + 3)(w - 3) = 0$$

$$w = 3, -3$$

8. ~~Falling Object. A hickory nut falls from a branch that is 100ft above the ground. After how many seconds does the hickory nut land on the ground?~~