

WS Solving Quadratics by Factoring

olve each equation by factoring.

1) $(7n - 5)(7n - 6) = 0$

2) $(m - 6)(m + 7) = 0$

3) $(7k + 2)(k + 6) = 0$

4) $a(3a - 7) = 0$

5) $7x^2 - 5 = 34x$

6) $3x^2 = -5 - 8x$

7) $3a^2 = 8a$

8) $3v^2 - v = 10$

9) $k^2 = 7k - 10$

10) $p^2 = 12 + 4p$

11) $x^2 = 3x$

12) $n^2 - 12n = -35$

- 13) A group of friends tries to keep a beanbag from touching the ground without using their hands. Once the beanbag has been kicked, its height can be modeled by $h = -16t^2 + 14t + 2$, where h is the height in feet above the ground and t is the time in seconds. Find the time it takes the beanbag to reach the ground.
- 14) The height of a flare can be approximated by the function $h = -16t^2 + 95t + 6$, where h is the height in feet and t is the time in seconds. Find the time it takes the flare to hit the ground.
- 15) The height of a fireworks rocket in meters can be approximated by $h = -5t^2 + 30t$, where h is the height in meters and t is the time in seconds. Find the time it takes the rocket to reach the ground after it has been launched.