

A Little More Practice

- (1.1) $\sqrt{36}$ (1.1) _____
(1.2) $-3\sqrt{49}$ (1.2) _____
(1.3) $5x\sqrt{81x^9}$ (1.3) _____
(1.4) $\sqrt{36+64} - \sqrt{36} - \sqrt{64}$ (1.4) _____
(1.5) $25\sqrt{0.0009}$ (1.5) _____
(1.6) $\pi\sqrt{0.16} + 2\pi\sqrt{.01}$ (1.6) _____
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- (2.1) $x^2 - 121 = 0$ (2.1) _____
(2.2) $x^2 = 289$ (2.2) _____
(2.3) $x^2 - 625 = 0$ (2.3) _____
(2.4) $400 = x^2$ (2.4) _____
(2.5) $x^2 = 196$ (2.5) _____
(2.6) $x^2 - 36 = 64$ (2.6) _____
(2.7) $5x^2 = 12500$ (2.7) _____
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- (3.1) $x^2 - x - 6$ (3.1) _____
(3.2) $x^2 + 8x - 9$ (3.2) _____
(3.3) $x^2 - 13x - 48$ (3.3) _____
(3.4) $4x^2 - 8x - 60$ (3.4) _____
(3.5) $28 + 17x - 3x^2$ (3.5) _____
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- (4.1) $x^2 + 3x - 8 = 0$ (4.1) _____
(4.2) $x^2 - 2x + 6 = 0$ (4.2) _____
(4.3) $x^2 - 9x = -2$ (4.3) _____
(4.4) $x^2 + 3x = 2x - 4$ (4.4) _____
(4.5) $x(5 - x) = 2x^2 - 3$ (4.5) _____
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- (5.1) $6x^2 - 5x - 2 = 0$ (5.1) _____
(5.2) $-3x^2 + 2x + 3 = 0$ (5.2) _____
(5.3) $(x+3)(x-4) = -2$ (5.3) _____
(5.4) $(x+3)(x+1) = -3$ (5.4) _____
(5.5) $\frac{2}{3}x^2 - x + 3 = 0$ (5.5) _____
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- (6.1) $(x-3)^2$ (6.1) _____
(6.2) $(2x+5)^2$ (6.2) _____
(6.3) $(a+b)^2$ (6.3) _____
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- (7.1) $(x-3)^2 - 16 = 0$ (7.1) _____
(7.2) $4(x^2 + 10x + 25) - (x-1)^2 = 0$ (7.2) _____

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Object is dropped: $h = -16t^2 + s$

Object is being thrown: $h = -16t^2 + vt + s$

h = height of the object

t = time in motion (seconds)

s = initial height (feet)

v = initial velocity (feet per second)

1. You drop keys from a window 30 feet above ground to your friend below. How long will it take for the object to reach the ground?
2. A acorn falls 45 feet from the top of a tree. How long will it take for the object to reach the ground?
3. A lacrosse player throws a ball upward from her playing stick with an initial height of 7 feet, at an initial speed of 90 feet per second. How long will it take for the object to reach the ground?
4. You throw a ball downward with an initial speed of 10 feet per second out of a window. How long will it take for the object to reach the ground?
5. A Redtailed hawk, circling at a height of 200 feet, sees a snake. The hawk folds its wings and dives with an initial speed of 105 feet per second. Estimate the time the snake has to escape.