

Name:

Class/Set:

Solving Quadratics - Formula, decimals

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1: Solve using the quadratic formula, giving your answer to 3 sig figs:

a) $z^2 - 5z - 3 = 0$

b) $p^2 + 8p - 5 = 0$

c) $s^2 - 3s - 1 = 0$

d) $v^2 - 9v + 5 = 0$

e) $f^2 + 9f - 4 = 0$

f) $t^2 - 6t + 1 = 0$

2: Solve using the quadratic formula, giving your answer to 3 sig figs:

a) $a^2 + 7a - 1 = 0$

b) $-5h^2 - 7h + 3 = 0$

c) $-2g^2 - 10g - 2 = 0$

d) $-w^2 + 10w - 2 = 0$

e) $-5k^2 - 8k + 2 = 0$

f) $4n^2 + 5n - 3 = 0$

Answers: Solving Quadratics - Formula, decimals

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1: a) $z = 2\frac{1}{2} \pm \frac{1}{2}\sqrt{37} = -0.541, 5.54$

b) $p = -4 \pm \sqrt{21} = -8.58, 0.583$

c) $s = 1\frac{1}{2} \pm \frac{1}{2}\sqrt{13} = -0.303, 3.30$

d) $v = 4\frac{1}{2} \pm \frac{1}{2}\sqrt{61} = 0.595, 8.41$

e) $f = -4\frac{1}{2} \pm \frac{1}{2}\sqrt{97} = -9.42, 0.424$

f) $t = 3 \pm 2\sqrt{2} = 0.172, 5.83$

2: a) $a = -3\frac{1}{2} \pm \frac{1}{2}\sqrt{53} = -7.14, 0.140$

b) $h = -\frac{7}{10} \pm \frac{1}{10}\sqrt{109} = -1.74, 0.344$

c) $g = -2\frac{1}{2} \pm \frac{1}{2}\sqrt{21} = -4.79, -0.209$

d) $w = 5 \pm \sqrt{23} = 0.204, 9.80$

e) $k = -\frac{4}{5} \pm \frac{1}{5}\sqrt{26} = -1.82, 0.220$

f) $n = -\frac{5}{8} \pm \frac{1}{8}\sqrt{73} = -1.69, 0.443$