

Name:

Class/Set:

Quadratic Formula

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

a) $-v^2 + 10v + 2 = 0$

b) $-3h^2 + 6h - 1 = 0$

c) $x^2 + 2x - 2 = 0$

d) $5f^2 - 7f - 4 = 0$

e) $q^2 + 8q - 4 = 0$

f) $-2y^2 + y + 4 = 0$

g) $-k^2 + 3k + 3 = 0$

h) $-w^2 + 5w - 1 = 0$

i) $j^2 - 4j - 1 = 0$

j) $-s^2 - 10s + 5 = 0$

k) $c^2 - 6c + 1 = 0$

l) $-e^2 - 9e - 4 = 0$

m) $-t^2 - 5t - 2 = 0$

n) $2q^2 + 9q - 3 = 0$

o) $-5f^2 + 8f - 1 = 0$

Answers: Quadratic Formula

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- 1: a) $v = 5 \pm 3\sqrt{3} = -0.196, 10.2$
b) $h = 1 \pm \frac{1}{3}\sqrt{6} = 0.184, 1.82$
c) $x = -1 \pm \sqrt{3} = -2.73, 0.732$
d) $f = \frac{7}{10} \pm \frac{1}{10}\sqrt{129} = -0.436, 1.84$
e) $q = -4 \pm 2\sqrt{5} = -8.47, 0.472$
f) $y = \frac{1}{4} \pm \frac{1}{4}\sqrt{33} = -1.19, 1.69$
g) $k = 1\frac{1}{2} \pm \frac{1}{2}\sqrt{21} = -0.791, 3.79$
h) $w = 2\frac{1}{2} \pm \frac{1}{2}\sqrt{21} = 0.209, 4.79$
i) $j = 2 \pm \sqrt{5} = -0.236, 4.24$
j) $s = -5 \pm \sqrt{30} = -10.5, 0.477$
k) $c = 3 \pm 2\sqrt{2} = 0.172, 5.83$
l) $e = -4\frac{1}{2} \pm \frac{1}{2}\sqrt{65} = -8.53, -0.469$
m) $t = -2\frac{1}{2} \pm \frac{1}{2}\sqrt{17} = -4.56, -0.438$
n) $q = -2\frac{1}{4} \pm \frac{1}{4}\sqrt{105} = -4.81, 0.312$
o) $f = \frac{4}{5} \pm \frac{1}{5}\sqrt{11} = 0.137, 1.46$