

PRE-AP ALGEBRA 2

For problems 1 and 2, solve the indicated quadratic equation for x using the Quadratic Formula.

1) $x^2 - 3x - 10 = 0$

$$a=1, b=-3, c=-10$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{3 \pm \sqrt{(-3)^2 - 4(1)(-10)}}{2(1)}$$

$$= \frac{3 \pm \sqrt{49}}{2} = \frac{3 \pm 7}{2}$$

$$x = \frac{3-7}{2} = \frac{-4}{2} = -2$$

$$x = \frac{3+7}{2} = \frac{10}{2} = 5$$

1A.4 CLASSWORK

2) $20x^2 - 7x - 6 = 0$

$$a=20, b=-7, c=-6$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{7 \pm \sqrt{(-7)^2 - 4(20)(-6)}}{2(20)}$$

$$= \frac{7 \pm \sqrt{529}}{40} = \frac{7 \pm 23}{40}$$

$$x = \frac{7-23}{40} = \frac{-16}{40} = -0.4 = -\frac{2}{5}$$

$$x = \frac{7+23}{40} = \frac{30}{40} = 0.75 = \frac{3}{4}$$