

Unit 10 Review Worksheet- Quiz Friday!!!!

Solve by completing the square.

1) $3x^2 + 6x + 2 = 0$ 2) $x^2 + 5x + 4 = 0$

For # 3-5 . . .

a) List all possible rational roots.

b) Find all roots and factors. Show all steps and work (synthetic division, factoring, etc)

3) $-4x^4 + 3x^2 + 1 = 0$

4) $f(x) = 3x^3 - x^2 - 6x + 2$

5) $2x^3 - 11x^2 + 10x + 8 = 0$

Solve each equation. Check for extraneous solutions.

6) $\frac{2p}{p+1} + \frac{3}{p-1} = \frac{15-p}{p^2-1}$

7) $\sqrt{a+1} - 5 = \sqrt{a+6}$

8) $\frac{3a}{2a+1} - \frac{4}{2a-1} = 1$