STANDARD II: The student will be able to solve equations and inequalities.

OBJECTIVE

2. Solve quadratic equations that are factorable.

ELIGIBLE CONTENT

- Factoring of the type $ax^2 + bx = 0$ may be required.
- The following factoring may be required:
    - difference of two squares
    - greatest common monomial
    - trinomial
    - common binomial

Tips:
Put the quadratic equation in standard form. Pull out any GCF. Look for special patterns.

Use magic number method to factor, ZPP to solve (Zero Product Property).

If b = 0, isolate squared term, solve by taking square root of both sides.

If c=0, solve by factoring GCF.

Mr. C.

SAMPLE ITEMS

1 Solve: $16x^2 - 1 = 0$

A $\frac{1}{4}, -\frac{1}{4}$

B $\frac{1}{16}, -\frac{1}{16}$

C $4, ^-4$

D $16, ^-16$

2 Solve: $3x^2 - 2x - 5 = 0$

A $\frac{5}{3}, ^-1$

B $\frac{3}{5}, ^-1$

C $\frac{5}{3}, 1$

D $\frac{-5}{3}, 1$

3 Solve: $4x(x+1) - (x+1) = 0$

A $0, \frac{1}{4}$

B $1, \frac{1}{4}$

C $^-1, 0$

D $^-1, \frac{1}{4}$

4 Solve: $3x^2 - 9x = 0$

A $3, 9$

B $0, ^-3$

C $0, 3$

D $0, 9$

5 Solve: $5x^2 - 12 = 11x$

    A $\frac{-4}{5}, 3$

    B $\frac{4}{5}, -3$

    C $\frac{-6}{5}, 2$

    D $\frac{6}{5}, -2$