

Name _____ Block _____

Find all zeros by factoring.

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

2) $3x^4 + 15x^2 - 72 = 0$

3) $3x^7 - 243x^3 = 0$

4) $8x^3 - 1 = 0$

5) $x^3 + 8x^2 + 16x = 0$

6) $4x^4 + 20x^2 + 25 = 0$

7) $x^4 + 7x^3 - 8x - 56 = 0$

8) $x^3 + 3x^2 - 2x - 6 = 0$

Find all the zeros given one factor $(x - k)$

9) $2x^3 - 3x^2 - 11x + 6, (x + 2)$

10) $2x^3 - 7x^2 - x - 12, (x - 4)$

Find all zeros given one zero $f(k) = 0$

11) $f(x) = x^3 + 3x^2 - 34x + 48, f(3) = 0$

12) $f(x) = x^3 + 2x^2 - 20x + 24, f(-6) = 0$

13) $f(x) = 2x^3 + 3x^2 - 3x - 2, f(-2) = 0$

14) $f(x) = 3x^3 - 16x^2 + 3x + 10, f(5) = 0$