

Factor each.

1) $x^4 - 12x^2 + 32 = 0$

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

3) $x^3 + 1 = 0$

4) $x^3 - 2x^2 + 4x - 8 = 0$

5) $x^3 + 2x^2 - 3x = 0$

6) $x^6 - 63x^3 - 64 = 0$

7) $x^3 + 8 = 0$

8) $x^4 - x^2 - 42 = 0$

Answers to

- 1) $(x^2 - 8)(x - 2)(x + 2) = 0$ 2) $(x + 2)(x^2 - 2) = 0$ 3) $(x + 1)(x^2 - x + 1) = 0$
4) $(x - 2)(x^2 + 4) = 0$ 5) $x(x + 3)(x - 1) = 0$ 6) $(x - 4)(x^2 + 4x + 16)(x + 1)(x^2 - x + 1) = 0$
7) $(x + 2)(x^2 - 2x + 4) = 0$ 8) $(x^2 + 6)(x^2 - 7) = 0$

