

Solve each polynomial. Use a graphing calculator to find all real zeros and synthetic division to solve. Show all work.

7) $y = x^4 - 4x^3 + 8x^2 - 16x + 16$

$x = 2, 2, \pm 2i$

8) $y = x^5 + 3x^4 - 2x^3 - 6x^2 + x + 3$

$x = 1, 1, -1, -1, -3$

9) $y = x^4 + 5x^3 + 4x^2 + 20x$

$x = 0, -5, \pm 2i$

10) $y = x^4 + 3x^3 - 5x^2 - 21x + 22$

$x = 1, 2, 3 \pm i\sqrt{2}$