

Write the Equation Given the Roots ( $a \neq 1$ )---PracticeKey  
No  
work

1. Roots of -4 and 6, with vertex at (1,5)

$$y = -\frac{1}{5}(x^2 - 2x - 24)$$

2. Roots of 1 and 2, with y-intercept of -4 Write your answer in standard form.

$$y = -2x^2 + 6x - 4$$

3. Roots of -1 and -6 that passes through (2, -6)

$$y = -\frac{1}{4}(x^2 + 7x + 6)$$

4. Double root of 4 with y-intercept of 24 Write your answer in standard form.

$$y = \frac{3}{2}x^2 - 12x + 24$$

Unit 1 (4.4)

5. Roots of -2 and 8 with vertex at (3,4)

$$y = \frac{-4}{25} (x^2 - 6x - 16)$$

6. Roots of 3 and -2, with y-intercept of -5

$$y = \frac{5}{6} (x^2 - x - 6)$$

7. Root of  $2i$  with y-intercept of -3 Write your answer in standard form.

$$y = \frac{-3}{4} x^2 - 3$$

8. Root of  $4 - 3i$  that passes through  $(-3,4)$

$$y = \frac{2}{29} (x^2 - 8x + 25)$$