

Practice Quiz for 10-2

[1] Factor and find all zeros:

[a]  $P(x) = x^4 - 12x^3 + 52x^2 - 96x + 64$

[b]  $P(x) = x^4 - x^2 + 2x + 2$

[2] Write a third-degree polynomial with the roots  $2 + 3i$  and  $-4$ .

[3] Evaluate each of the following.

[a]  $(12 - 5i)^2$

[b]  $(1 - i)^3$

[c]  $\frac{2 + i}{3 - 2i}$

[d]  $|-5 + 12i|$

[e]  $\sqrt{5 + 12i}$