# Graded quiz  Unit 3 Math 1201

College Algebra (University of the People)

The graph of $f(x) = x^3 - 6x^2 + 4x + 1$ hits the x-axis how many times?

Select one:

- a. 0
- b. 1
- c. 2
- d. 3
- e. 4

Clear my choice

Question **2**

Not yet answered

Marked out of 1.00

What are the possible rational roots of $f(x) = 5x^4 - 173x^3 - 16x^2 - 7x - 15$, according to the rational root theorem? "+-" means "plus or minus".

Select one:

- a. {+-1, +- 5}
- b. {+- 1, +- 3, +- 5, +- 15}
- c. {+- 1, +- 5, +- 1/3, +- 5/3, +- 1/5, +- 1/15}
- d. {+- 1/5, +- 3/5, +-1, +- 3, +- 5, +- 15}
- e. None of these

Clear my choice

Question **3**

Not yet answered

Marked out of 1.00

The zeroes of $f(x) = x^2 - 8x + 17$ are?

Select one:

- a. {8, 17}
- b. {4 ± i}
- c. {-4 ± i}
- d. {17 ± 8i}
- e. None of these

Clear my choice

Question **4**

Not yet answered

Marked out of 1.00

If A = 3 and B = 4 + i, A/B = ?

Select one:

- a. 3/4
- b. 12/17 – (3/17)i
- c. 12/5 + (3/5)i
- d. 12/17 + (3/17)i
- e. None of these

Clear my choice

Question **5**

Not yet answered

Marked out of 1.00

The remainder of $x^8 + 1$ divided by $x + 1$ is:

Select one:

- a. 1
- b. 2
- c. 3
- d. 4
- e. None of these

Clear my choice

Question **6**

Not yet answered

Marked out of 1.00

The vertex of the parabola $y = (x - 1)^2 - 5$ is:

Select one:

- a. (-1, -5)
- b. (-1, 5)
- c. (1, 5)
- d. (1, -5)
- e. None of these

Clear my choice

Question **7**

Not yet answered

Marked out of 1.00

What are the least, and most, number of distinct real roots of a 6th degree polynomial?

Select one:

- a. The least is 0, the most is 6
- b. The least is 1, the most is 5
- c. The least is 3, the most is 6
- d. The least is 6, the most is 6 (6 either way)
- e. None of these

Clear my choice

Question **8**

Not yet answered

Marked out of 1.00

The quotient of $4x^3 + 10x^2 - 6x - 20$ by $x + 2$ is:

Select one:

- a. $-4x^2 - 2x + 10$
- b. $4x^2 + 2x - 10$
- c. $-4x^2 + 2x - 10$
- d. $-4x^2 + 2x + 10$
- e. None of these

Clear my choice

Question **9**

Not yet answered

Marked out of 1.00

The graph of $f(x) = 6x^5 - 5x^4 + 12x^3 + 8x^2 + 2x + 9$ would have, at most, how many x-intercepts?

Select one:

- a. 0
- b. 2
- c. 5
- d. 6
- e. 9

Clear my choice

Question **10**

Not yet answered

Marked out of 1.00

If $f(x) = x^8 - 1$ is divided by $x - 2$, the remainder would be?

Select one:

- a. -1
- b. 0
- c. 1
- d. 255
- e. None of these