

Name: _____

Teacher: Lee

1. Which expression is equivalent to

$$\frac{2x^4 + 8x^3 - 25x^2 - 6x + 14}{x+6} ?$$

1. $2x^3 + 4x^2 + x - 12 + \frac{86}{x+6}$

2. $2x^3 - 4x^2 - x + 14$

3. $2x^3 - 4x^2 - x + \frac{14}{x+6}$

4. $2x^3 - 4x^2 - x$

2. If $p(x) = x^3 - 6x^2 + 3x + 10$, what is the remainder of $p(x) \div (x - 5)$?

1. -280 2. -80

3. 0 4. 8

3. If $p(x) = 2x^3 - 5x^2 - 9x + 18$, what is the remainder of $p(x) \div (x - 2)$?

1. -54 2. -4

3. 0 4. 44

4. The expression $\frac{x^3 + 2x^2 + x + 6}{x+2}$ is equivalent to

1. $x^2 + 3$

2. $x^2 + 1 + \frac{4}{x+2}$

3. $2x^2 + x + 6$

4. $2x^2 + 1 + \frac{4}{x+2}$

5. Find the value of k so that the remainder is -12 for

$$(2x^4 + 4x^3 - 7x^2 - kx + 9) \div (x - 1).$$

1. -4 2. -2

3. 20 4. 30

6. Find the value of k so that the remainder is 4 for

$$(x^3 - 10x^2 - kx + 14) \div (x - 5).$$

1. -121 2. -23

3. 73 4. 365

Answer Key for polynomials 3

Question 1: 3

Question 2: 3

Question 3: 2

Question 4: 2

Question 5: 3

Question 6: 2