

# 1.3 Division of Polynomials

Name: \_\_\_\_\_

## Corrective Assignment #1

Directions: Perform the given operation.

1)  $\frac{9m^3 - 10m^2 - 3m + 4}{m - 1}$

2)  $\frac{10v^4 + 20v^3 - 31v^2 + v + 19}{v + 3}$

3)  $\frac{7m^3 + 7m^2 + 10}{m + 1}$

Directions: Pick the best choice.

4) Let  $p(x) = x^4 + 6x^3 - 19x^2 - 27x - 17$ . What is the remainder when  $p(x)$  is divided by  $(x + 8)$ ? Show work.

- A. -7
- B. 0
- C. 7
- D. 9

5) Let  $p(x) = x^3 - 13x^2 + 24x + 54$ . What is the remainder when  $p(x)$  is divided by  $(x - 10)$ ? Show work.

- A. 0
- B. -6
- C. 8
- D. 10

Directions: Given one factor, factor completely.

6)  $(x + 4)$  is a factor of  
 $(x^3 + 9x^2 + 6x - 56)$

7)  $(x - 1)$  is a factor of  
 $(5x^3 - 4x^2 - 5x + 4)$

8)  $(x - 2)$  is a factor of  
 $(4x^3 + 8x^2 - 17x - 30)$

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## Corrective Assignment Answers

1)  $9m^2 - m - 4$

2)  $10v^3 - 10v^2 - v + 4 + \frac{7}{v+3}$  or  $10v^3 - 10v^2 - v + 4$  R 7

3)  $7m^2 + \frac{10}{m+1}$  or  $7m^2$  R 10

4) C

5) B

6)  $(x + 7)(x - 2)(x + 4)$

7)  $(5x - 4)(x + 1)(x - 1)$

8)  $(2x + 3)(2x + 5)(x - 2)$