## **Evaluating Polynomial**

## Evaluate each function at the given value.

1) 
$$-2x^2 - 4x - 2$$
 at  $x = -3$ 

6) 
$$-x^3 - 2x^2 + 5x + 6$$
 at  $x = 1$ 

Evaluated Value: -8

Evaluated Value: 8

2) 
$$-2x^2 + 3x - 1$$
 at  $x = -3$ 

7) 
$$2x^3 - 3x^2 - 2x$$
 at  $x = 5$ 

Evaluated Value: -28

Evaluated Value: 165

3) 
$$-4x^5 - 18x^4 - 20x^3 + 10x^2 + 24x + 8$$
 at  $x = 4$ 

8) 
$$-4x^5 - 22x^4 - 30x^3 + 10x^2 + 34x + 12$$
 at  $x = -1$ 

Evaluated Value: -9720

Evaluated Value: 0

4) 
$$2x^4 + 3x^3 - 14x^2 - 33x - 18$$
 at  $x = 6$ 

9) 
$$2x^4 + 8x^3 + 12x^2 + 8x + 2$$
 at  $x = \frac{1}{2}$ 

Evaluated Value: 2520

Evaluated Value:  $\frac{81}{8}$ 

5) 
$$4x^5 - 14x^4 - 6x^3 + 34x^2 + 10x - 12$$
 at  $x = -6$ 

5) 
$$4x^5 - 14x^4 - 6x^3 + 34x^2 + 10x - 12$$
 at  $x = -6$  10)  $-2x^5 - 11x^4 - 4x^3 + 53x^2 + 48x - 36$  at  $x = -\frac{1}{2}$ 

Evaluated Value: -46800

Evaluated Value: 
$$-\frac{375}{8}$$