**2.8 Function Operations and Composition**

**Arithmetic Operations on Functions**

**CLASSROOM EXAMPLE 1 Using Operations on Functions**

Let  and  Find each of the following.

(a)  (b) 

(c)  (d) 

**CLASSROOM EXAMPLE 2 Using Operations on Functions and Determining Domains**

Let  and  Find each of the following.

(a)  (b) 

(c)  (d) 

(e) Give the domains of the functions in parts (a)–(d).

**Composition of Functions and Domain**

**CLASSROOM EXAMPLE 5 Evaluating Composite Functions**

Let  and 

(a) Find  (b) Find 

**CLASSROOM EXAMPLE 6 Determining Composite Functions and Their Domains**

Given that  and  find each of the following.

(a)  and its domain (b)  and its domain