

# Solutions to Quiz 1

MATH 139-01 and -02  
Monday, September 8, 2003

1. Let  $f$  be a function of  $x$  such that  $f(x) = \frac{x+1}{x^2-1}$ . What is  $f(-2)$ ?

**Solution:**  $f(-2) = \frac{(-2)+1}{(-2)^2-1} = \frac{-1}{4-1} = \frac{-1}{3}$ .

2. If  $f(x) = x^2 - 6$ , what is  $f(x+2)$ ? Simplify your answer.

**Solution:**  $f(x+2) = (x+2)^2 - 6 = x^2 + 4x + 4 - 6 = x^2 + 4x - 2$ .

3. Let  $A = \{1, 2, 3, 4\}$  and  $B = \{1, 3, 5, 7, 9\}$ . Draw an arrow diagram that gives a **nonfunction** from  $A$  to  $B$ .

**Solution:** Here is one possible solution; there are many.

