If f(x) =√x^2-1 and g(x) = √x-1 and, which expression represents f(x)/g(x) for x>1?

1. √x-1
2. 1/√x+1
3. √x
4. √x+1

The function h(x)= 1/98x^2 describes h(x), the height of a rollercoaster track, where x is the horizontal distance in feet from the center of this section of the track. The tower that support this part of the track are the same height and are 150 feet apart. Which is the best estimate of the height of the tower?

1. 121.2 feet
2. 57.4 feet
3. 229.6 feet
4. 85.7 feet

The profit (p) in dollars, for a company is modelled by function p(x)= -750x^2+15,000x, where x is the number of items produced. For which values of x will the company lose money?

1. 10 ≤ x < 20
2. x < 2
3. x > 20
4. 2 < x ≤ 10

Nancy made the following statement: The range of f(x) = ax + b is the set of all real numbers given that a and b are real numbers. Which produces a counter example to her statement?

1. a < 0
2. b= 0
3. b< 0
4. a = 0

Consider the equations: f(x)= -6x-1 and g(x) = 4x^2 Select the solution for (f+g) (x).

1. -6x-1+4x2
2. -24x^3-4x2
3. -24x2-1
4. -6x-1-24x2

 Consider the equations: f(x)= -6x-1 and g(x) = 4x^2 Select the solution for (fg) (x).

1. -6x-1+4x2
2. -24x2-4x2
3. -24x2-1
4. -24x5

Select the x-coordinate of the vertex of the parabola defined by the function f(x) = -9x2 + 5x + 2.

1. -9/5
2. 2
3. 5/18
4. -5/9

Determine the equation of g(x) that results from translating the function f(x) = x^2 + 7 upward 8 units.

1. g(x) = (x + 15) 2
2. g(x) = (x + 8) 2 + 7
3. g(x) = x2 – 1
4. g(x) = x2 + 15

Determine the equation of *g*(*x*) that results from translating the function *f*(*x*) = (*x* + 8)2 to the right 11 units.

Hint*X*

1. *g*(*x*) = (*x* - 3)2
2. *g*(*x*) = (*x* + 19)2
3. *g(x) =* (x + 8)2 – 11
4. *g*(*x*) = (*x* + 8)2 + 11