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6) 

8) 

30)

a)  is the cost for producing 10kg of a chemical in thousands of dollars: .

b) Solve for *q*:



$200,000 will produce 500kgs of a chemical.

c)  is the kilograms of the chemical produced given a certain cost:

 

32).

a)  Represents the GDP in billions of dollars, in the year 2001.

b) 

There is a value *t,* which outputs 9873 when inputted into *G.* Thus, the GDP during that particular year after 1990 was 9.873 trillion

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10) The graph is increasing and concave up due to positive changes in *y,* and because as *x*, increases, the rate of change of *y* decreases:





18)

a) E

b) G

c) F

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22)

a) If the length salmon *a* has length 4 and salmon *b* has length 16,

then the swimming speed of salmon *b* is 2*a*:



b).

The graph is increasing and concave down.

c). Yes, because the graph is increasing.

d). The difference in speed between the two smaller fish is greater than the difference in speed between the two larger fish.

