1. [12 points] Use the graphs to answer the questions below.

(a) [2 points] Which of the graphs above are concave down?

Answer=______________.

Solution: A

(b) [2 points] Which of the graphs above have constant rate of change?

Answer=______________.

Solution: D

(c) [2 points] Which of the graphs above are decreasing?

Answer=______________.

Solution: A, E
The graphs from the previous page have been copied here for your convenience

(Match each verbal description of a function below to its graph above.

d. [2 points] Let \( f(x) \) be the amount of money in your savings account (in thousands of dollars) \( x \) years after you make an initial deposit of $10,000, assuming that the bank pays an annual interest rate of 2% and you do not withdraw or add any money to the account.

Answer=__________________________.

[Solution: B]

e. [2 points] You place a mixing bowl weighing 10 grams on a weighing scale. Let \( f(x) \) be the reading on your weighing scale (in grams) after adding \( x \) grams of flour to the mixing bowl.

Answer=__________________________.

[Solution: D]

f. [2 points] A rock is dropped from 10 meters above the ground. Let \( f(x) \) be the height of the ball above the ground (in meters) \( x \) seconds after you drop it.

Answer=__________________________.

[Solution: A]