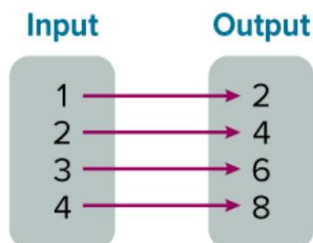
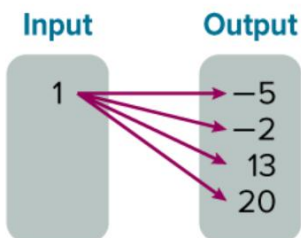


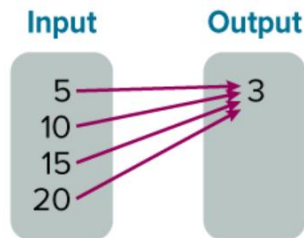


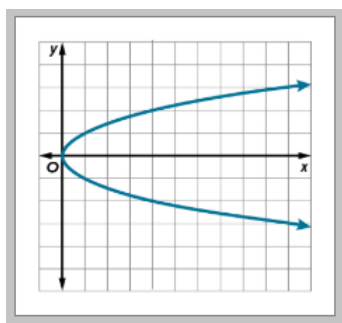
**Q1: Choose the correct answer:**

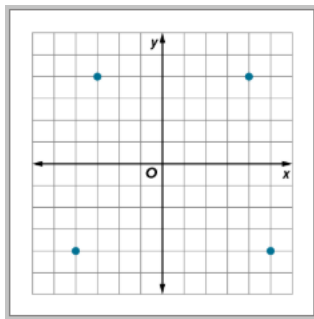
1) Determine whether the relation is a function or not function.





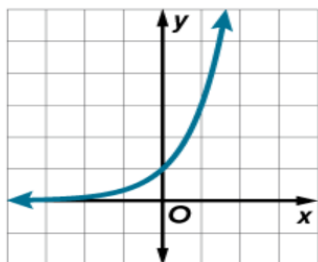







|     |    |    |   |   |   |
|-----|----|----|---|---|---|
| $x$ | -2 | -1 | 0 | 1 | 2 |
| $y$ | 4  | 1  | 0 | 1 | 4 |

2) Determine whether the functions represent a linear or nonlinear function. **Explain.**



| Time (h), $x$ | Money Earned (\$), $y$ |
|---------------|------------------------|
| 1             | 9                      |
| 2             | 18                     |
| 3             | 27                     |
| 4             | 36                     |

$$y = \frac{3}{x} + 2$$

### Q3) Choose the correct answer

1) Which equation best describes the relationship between the corresponding values of  $x$  and  $y$  shown in the table?

A)  $y = x - 10$

B)  $y = 2x - 8$

C)  $y = 2x^2 - 8$

D)  $y = 3x - 6$

| $x$ | $y$ |
|-----|-----|
| -2  | -12 |
| 0   | -6  |
| 2   | 0   |
| 4   | 6   |

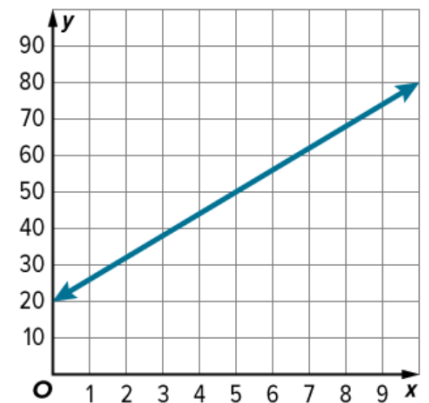
2) Ahmed has some money that he has saved. He starts a new job. The graph shows the total amount of money Larry will have  $y$  after working  $x$  hours.

a)  $Y = 20x + 20$

b)  $Y = 6x + 20$

c)  $Y = 9x + 20$

d)  $Y = 80x + 20$



3) A caterer charges AED 150 plus AED 15 per person served. The total cost is represented by the function  $y = 15x + 150$  where  $y$  is the total cost and  $x$  is the number of guests. If Mariam invites 100 people to a catered event, how much will it cost?

a) 1500 AED

b) 300 AED

c) 1650 AED

d) 165 AED

4) The Toy Car Company sells toy cars for \$8.00 per car and charges \$3.50 per order for shipping. The total profit of an order  $p$  is represented by the function  $p = 8c + 3.50$ , where  $c$  is the number of cars sold. Determine **appropriate input values** for this situation.

a) Natural numbers

b) integers

c) Rational numbers

d) Irrational numbers

Q6) Complete the function table for  $y = -3x + 2$ .

| Input, $x$ | Output, $y$          |
|------------|----------------------|
| -1         | <input type="text"/> |
| 0          | <input type="text"/> |
| 1          | <input type="text"/> |
| 2          | <input type="text"/> |

