Name: _____

ASM Tuition Academy

Transforming Graphs

Instructions:

- Use **black** ink or ball-point pen.
- Answer all questions.
- Answer the questions in the spaces provided
  - there may be more space than you need.
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all you're working out.**

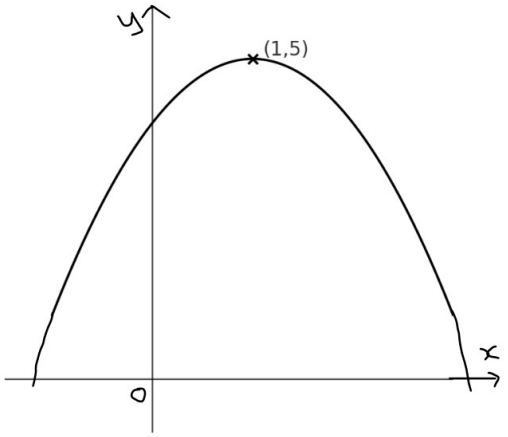
Information:

- The marks for each question are shown in brackets
  - use this as a guide as to how much time to spend on each question.

Advice:

- Read each question carefully before you start to answer it.
- Keep an eye on time.
- Try to answer every question.
- Check your answers if you have time at the end.

Q1- The graph of y=f(x) is shown below.



The coordinates of the maximum point of this curve are (1, 5).

Write down the coordinates of the maximum point of the curve with equation

(a) y=f(x+3)

(1)

(b) y=−f(x)

(1)

(c) y=f(x)−3

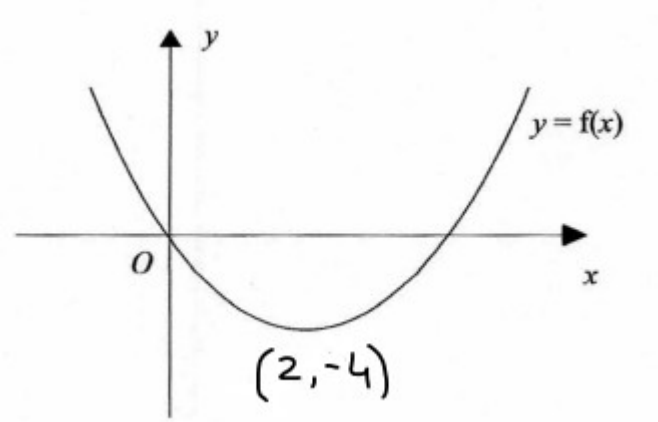
(1)

(d) y=f(−x)

(1)

(Total for Question 1 is 4 marks)

Q2- The graph of y=f(x) is shown below.



The coordinates of the minimum point of this curve are (2, -4).

Write down the coordinates of the minimum point of the curve with equation:

(a) y= f (x+2)

(1)

(b) y = −f(x)

(1)

(c) y= f(x) + 2

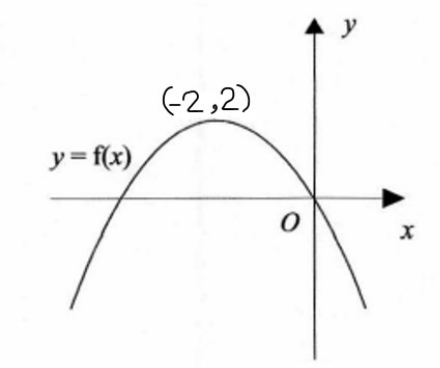
(1)

(d) y = f(−x)

(1)

(Total for Question 2 is 4 marks)

Q3-The graph of y=f(x) is shown below.



The coordinates of the maximum point of this curve are (-2, 2).

Write down the coordinates of the maximum point of the curve with equation:

(a) y = f(x−3)

(1)

(b) y = f(−x)

(1)

(c) y = −f(x+2)

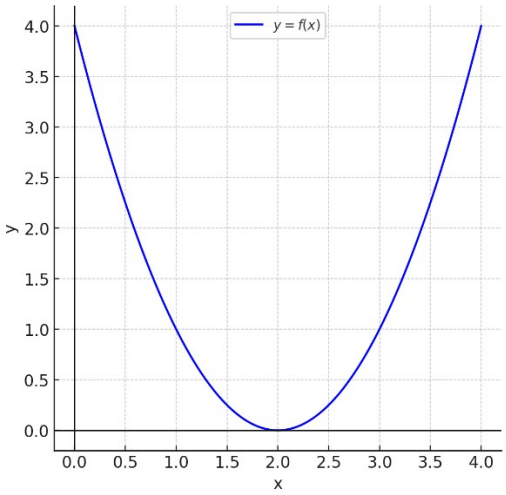
(1)

(d) y = f(−x) −1

(1)

(Total for Question 3 is 4 marks)

Q4-The graph of y=f(x) is shown on both grids below.



(a) On the grid, sketch the graph of y=−f(x)

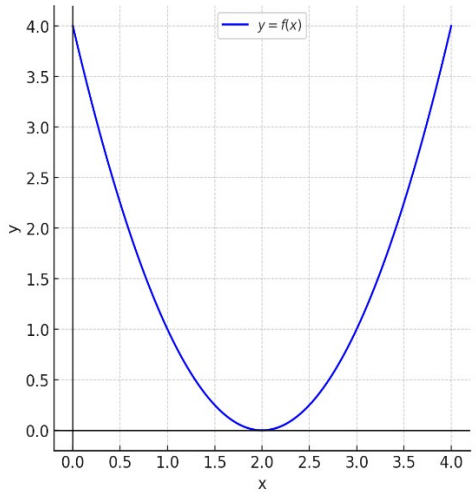
(2)

(b) (b) On the grid, sketch the graph of y=f(x+2)

(2)

(Total for Question 4 is 4 marks)

Q5- The graph of y=f(x) is shown on both grids below.



(a) On the grid, sketch the graph of y=f(−x)

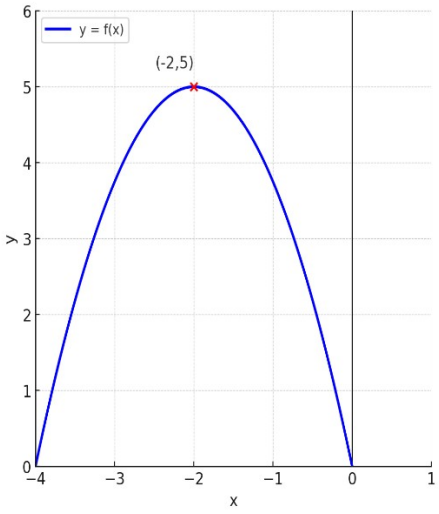
(2)

(b) On the grid, sketch the graph of y=f(x)−2

(2)

(Total for Question 5 is 4 marks)

Q6- The graph of y=f(x) is shown on both grids below.



(a) On the grid, sketch the graph of y=−f(x)

(2)

(b) On the, sketch the graph of y=f(x−1)

(2)

(Total for question 6 is 4 marks)

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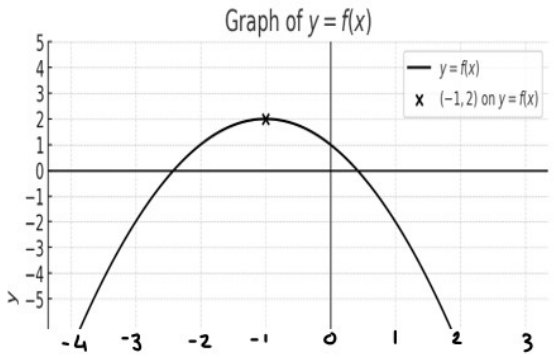
Q7-The graph of y=f(x) is shown on the grid.



(a) On the grid, sketch the graph of y=f(x−1)

(1)

The graph of y=f(x) has a turning point at (-1, 2).

(b) Write down the coordinates of the turning point of y=f(−x) + 2

(1)

(Total for question 7 is 2 marks)