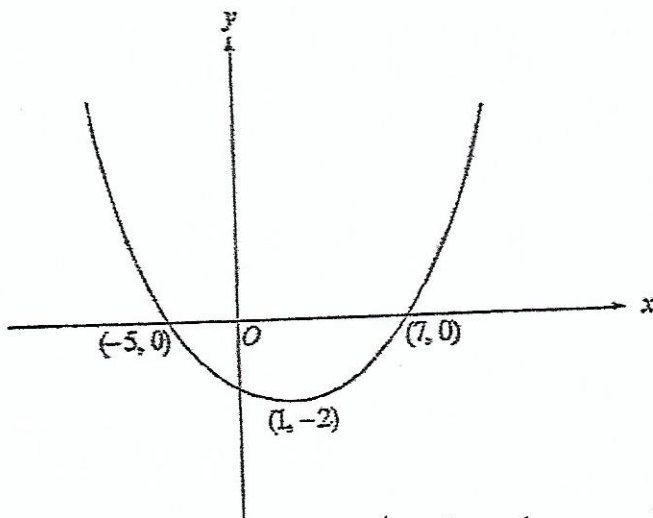96. The diagram shows a sketch of the graph of $y = f(x)$. The graph passes through the points $(-5, 0)$ and $(7, 0)$ and has a minimum point at $(1, -2)$.

Sketch the following graphs, using a separate set of axes for each graph. In each case, you should indicate the coordinates of the stationary point and the coordinates of the points of intersection of the graph with the x-axis.
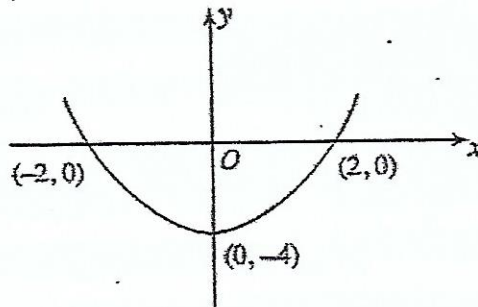
(a) $y = 3f(x)$ [3]

(b) $y = f(-x)$ [3]

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97.

The diagram shows the graph of $y = f(x)$. The curve passes through the points $(2, 0)$ and $(-2, 0)$, and has a minimum point at $(0, -4)$.

Sketch on separate diagrams the graphs of

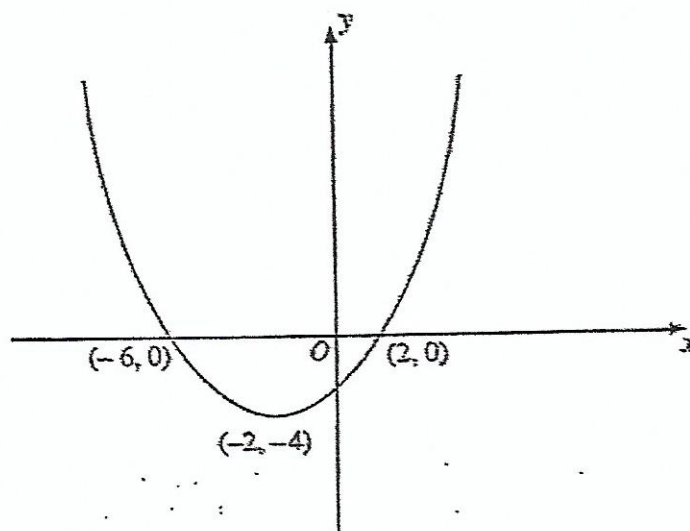(a) $y = f(x) + 4$, [2]

(b) $y = f(x + 2)$, [3]

indicating the coordinates of the points of intersection with the x-axis and the coordinates of the stationary points.

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(98) ● The diagram shows a sketch of the graph of $y = f(x)$. The graph passes through the points $(-6, 0)$ and $(2, 0)$, and has a minimum point at $(-2, -4)$.

Sketch the following graphs, using a separate set of axes for each graph. In each case, you should indicate the coordinates of the stationary point and the coordinates of the points of intersection of the graph with the x-axis.

(a) $y = f(x + 1)$ [3]

(b) $y = f(2x)$ [3]