

Solutions

Award method and answer marks as indicated; accept equivalent correct methods.

2.1

- Substitution gives $-5, -3, 1$ respectively.

2.2

- Square before applying the minus: $0, 3, 4, 3, 0$.

2.3

- The points are $(-3, -2), (-2, -3), (2, 3), (3, 2)$; $x = 0$ is excluded.

2.4

- Values are $5, 0, -3, -4, -3, 0, 5$ at integer x . A smooth curve crosses at $x = -2, 2$.

3.1

(a)

- In order, $y = 2, -1, -2, -1, 2$.

(b)

- **Smooth symmetric curve through the five points; ruled horizontal line at $y = 2$.**

(c)

- The crossings are $(-2, 2), (2, 2)$: $x = -2, 2$.

3.2

(a)

- Table values are **$-2, -4, -6, 6, 4, 2$** , in the stated order.
- Plot accurately and draw two smooth branches without joining across zero.

(b)

- The horizontal line $y = 4$ meets the positive branch at $x = \mathbf{3}$.
- At $x = 0$, $12/x$ would divide by zero, so no point is defined.