Prelim Revision   **Curve Sketching**

Sketch the curves showing vertical and non-vertical asymptotes, stationary points and coordinates of intercepts.

1) $f(x) = \dfrac{x^2 - 10x + 9}{x^2 + 10x + 9}$ 2) $f(x) = \dfrac{2x^2 - 3x - 3}{x^2 - 3x + 2}$ 3) $f(x) = \dfrac{4x - 5}{x^2 - 1}$

4) $f(x) = \dfrac{x^2 + 3}{x - 1}$ 5) $y = \dfrac{4(x + 1)}{x^2 + 2x + 2}$ 6) $y = \dfrac{2x - 1}{(x - 1)^2}$

7) Sketch the graphs of $f(x)$ and $|f(x)|$.

a) $f(x) = x + 2$ b) $f(x) = 5 - 2x$ c) $f(x) = x^2 - 2x - 3$

Answers.

1)

2)

3)

4)

5)

6)

7a)

b)

c)