

PRE-AP ALGEBRA 2

- 1) For $y = f(x) = 16x^3 - 82x^2 + 77x - 20$,
- a) Graph $y = f(x)$ to find its integer root.
Window: $0 \leq x \leq 5, -100 \leq y \leq 25$
 - b) Use synthetic division to factor $y = f(x)$ into three linear factors.
 - c) State the three roots of $y = f(x)$.

- 2) Write $y = f(x) = (x + 3)(7x + 3)(5x - 8)$ in standard form.

3B.5 CLASSWORK

- 3) For $y = f(x) = x^3 - 22x^2 + 148x - 304$,
- a) Graph $y = f(x)$ to find its integer root.
Window: $0 \leq x \leq 15, -40 \leq y \leq 40$
 - b) Use synthetic division and the Quadratic Formula to find the other two roots of $y = f(x)$.
 - c) State the x - and y -intercepts of $y = f(x)$.

- 4) For $y = f(x) = x^3 - 8x^2 + 29x - 102$,
- a) Graph $y = f(x)$ to find its integer root.
Window: $0 \leq x \leq 8, -100 \leq y \leq 150$
 - b) Use synthetic division and the Quadratic Formula to find the other two roots of $y = f(x)$.
 - c) State the x - and y -intercepts of $y = f(x)$.