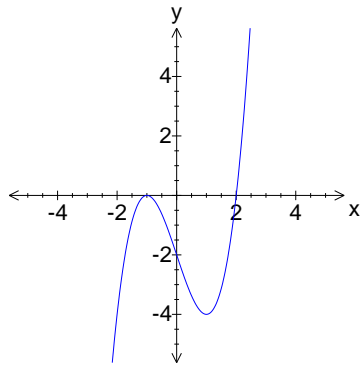## Polynomials 1 (answers)

1. $(x - 1)(x - 3)(x + 2)$

2. $a = -5$ and $b = 8$;   third root .... $x = 4$

3.   proof

4. $x = -1$, $x = 2$, $x = 3$

5. $k = 3$

6.   (a) $k = 3$ (b)   A(-3,0)

7. $b = $ -2   or $b = 4$

8.

Polynomials 2 (answers)

1.   (*a*) $f(2) = 42$, $f(-1) = 0$ (*b*) $y = 3$

2.   (*a*) $x^2 + 6x - 2$,   *rem.* $= 1$

      (*b*) $x^2 + 3$,   *rem.* $= -4$

      (*c*) $x^2 - x - 1$,   *rem.* $= 0$

3.   Proof , $(x - 4)(x + 1)$

4.   Proof , $x = 2{\cdot}09$

5.   (*a*) $(x - 1)(x - 4)(x + 5)$ (*b*) $(x - 1)(2x - 3)(2x + 1)$

6.   (*a*) $k = -20$ (*b*) $c = -2$ (*c*) $a = -13$, $b = 6$

7.   (*a*) $x = -\tfrac{2}{3}$, $x = 1$, $x = 2$

      (*b*) $x = -2$, $x = -1$, $x = 3$

8.   Proof

9. $f(x) = x^3 - 4x^2 - 3x + 18$