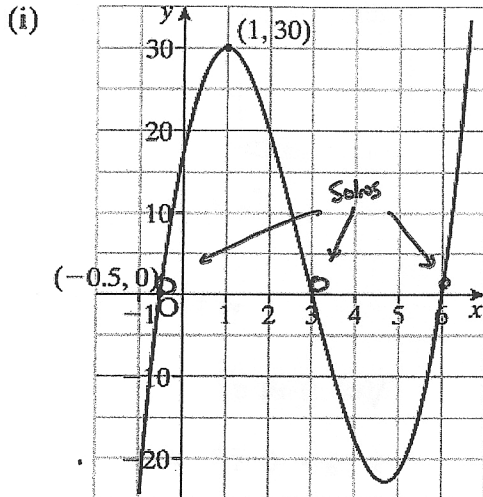


11. Find a cubic expression for each of the following curves.



$$x = -0.5 \quad (x-3) \quad (x-6)$$

$(x+0.5)$ same to get rid of decimal
 $(2x+1)$

$$y = a(2x+1)(x-3)(x-6)$$

$$y = a [2x^2 - 6x + 1x - 3](x-6)$$

$$= a [(2x^2 - 5x - 3)(x-6)]$$

$$= a [2x^3 - 12x^2 - 5x^2 + 30x - 3x + 18]$$

(1,30)

$$30 = a [2(1)^3 - 12(1)^2 - 5(1)^2 + 30(1) - 3(1) + 18]$$

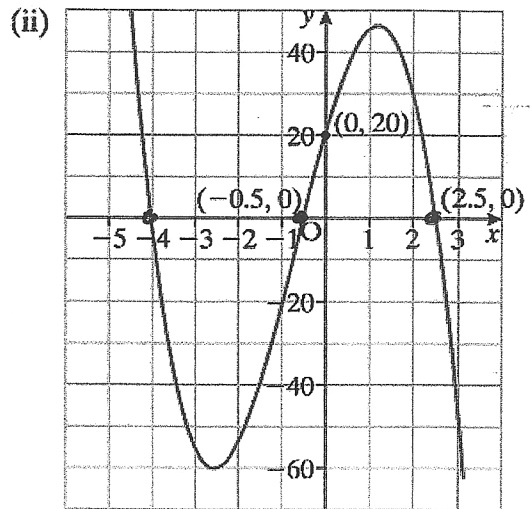
$$30 = 30a$$

$$a = 1$$

$$y = 1 [2x^3 - 17x^2 + 27x + 18]$$

$$y = 2x^3 - 17x^2 + 27x + 18$$

11. Find a cubic expression for each of the following curves.



$$(x+4) (x+0.5) (x-2.5)$$

\downarrow \downarrow
 $(x+4) (2x+1) (2x-5)$

$$y = a [(x+4)(2x+1)(2x-5)]$$

$$y = a [(2x^2 + x + 8x + 4)(2x-5)]$$

$$= a [(2x^2 + 9x + 4)(2x-5)]$$

$$= a [4x^3 - 10x^2 + 18x^2 - 45x + 8x - 20]$$

$$= a [4x^3 + 8x^2 - 37x - 20]$$

(0,20)

$$20 = a [4(0)^3 + 8(0)^2 - 37(0) - 20]$$

$$20 = -20a$$

$$a = -1$$

$$y = -1 [4x^3 + 8x^2 - 37x - 20]$$