

Spt 3

5A

15

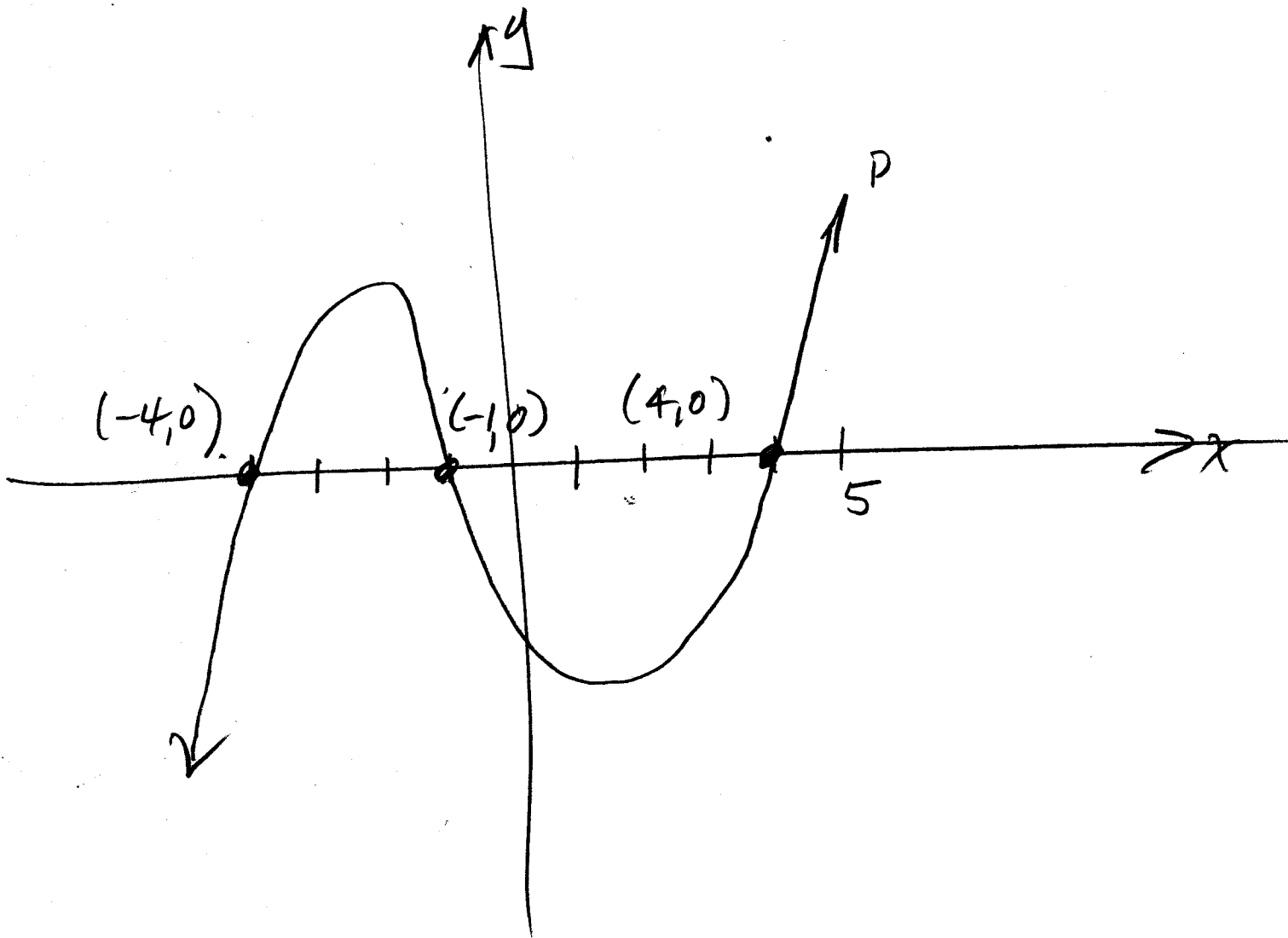
$$\textcircled{1} \quad p(x) = x^3 + x^2 - 16x - 16$$

$$= x^2(x+1) - 16(x+1)$$

$$= (x^2 - 16)(x+1)$$

$$= (x+4)(x-4)(x+1)$$

Zeros:  $-4, 4, -1$



~~5/13~~  
②

$$p(x) = 2x^3 + 14x^2 - 16x$$

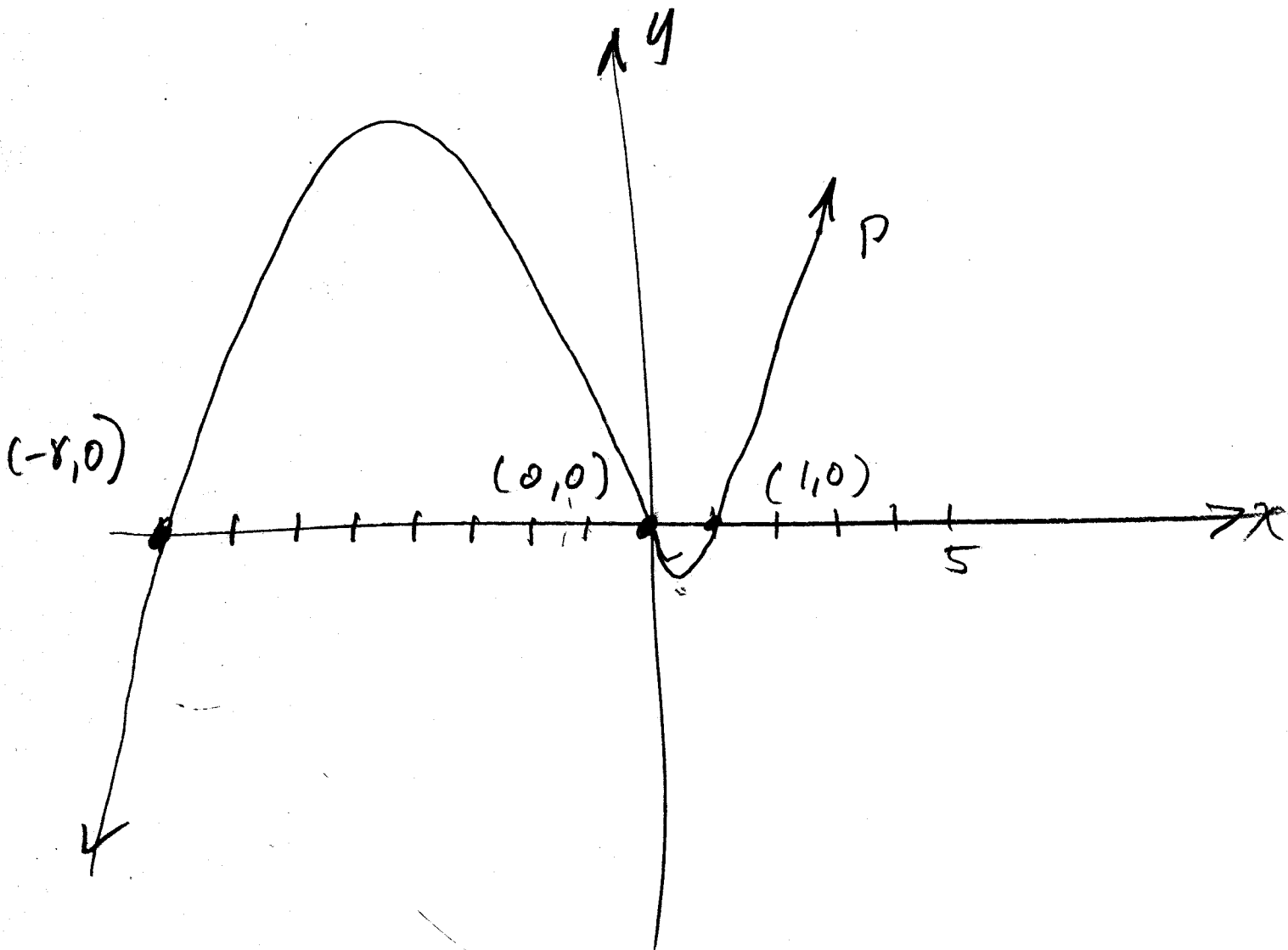
$$= 2x^2(x + 7x - 8)$$

$$ac = -8$$

$$(8, -1)$$

$$= 2x(x + 8)(x - 1)$$

Zeros:  $0, -8, 1$



5 pts

③  $P(x) = -x^3 - 2x^2 + 43x - 40$

