(23) $p(x) = 3x^2 - 2x + 5$

$p(a) = 3a^2 - 2a + 5$

$4p(a) = 4(3a^2 - 2a + 5)$

$= 12a^2 - 8a + 20$

(22) $r(x) = x^3 + x + 1$

$r(3a) = (3a)^3 + 3a + 1$

$= 27a^3 + 3a + 1$

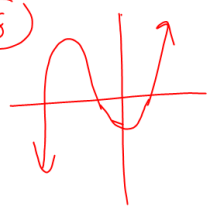
$x^{\textcircled{1}} + 5$

$4 = 4x^{\textcircled{0}}$

$f(x) \to \infty$, as $x \to \infty$ (right)

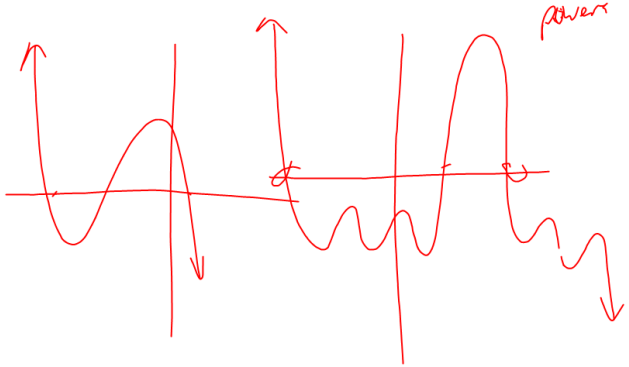
$f(x) \to -\infty$, as $x \to -\infty$ (left)

(28)



(34) $P(s) = \frac{s^3}{1000}$

$P(18) = \frac{18^3}{1000} = \frac{5832}{1000} = 5.832$ units of power



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

x	f(x)
−4	144
−3	30
−2	0
−1	0
0	0
1	−6
2	0
3	60
4	240