

## 6.4 Practice (circled problems)

① 4<sup>th</sup> degree, 6

② 3<sup>rd</sup> degree (cubic),  $\frac{1}{5}$

③ not a polynomial

⑤  $p(-2) = 24$   
 $p(3) = -216$

⑥  $p(-2) = -29$   
 $p(3) = -39$

⑩  $p(-2) = -6$   
 $p(3) = 24$

⑱ a) As  $x \rightarrow \infty, y \rightarrow \infty$   
As  $x \rightarrow -\infty, y \rightarrow -\infty$

b) odd

c) 5

⑪  $192a^2 - 4$

⑫  $2a^4 - 5a^2 + 1$

⑬  $-40a^2 + 50a - 5$

⑭  $2x^2 + 3x + 1$

⑰ a) As  $x \rightarrow \infty, y \rightarrow \infty$   
As  $x \rightarrow -\infty, y \rightarrow \infty$

b) even

c) 2

⑱ a) As  $x \rightarrow \infty, y \rightarrow \infty$   
As  $x \rightarrow -\infty, y \rightarrow \infty$

b) even

c) 1

## 6.6

③  $x = \pm 3, \pm i\sqrt{6}$

⑥  $x = \pm 1, \pm 2$

## 6.8

①  $x = -1, \pm 3i$

④  $x = 3, 1 \pm 2i$