

# Answer Key

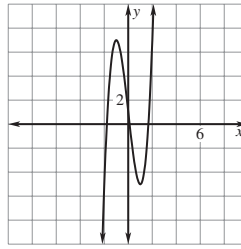
## Chapter 6 Review and Assessment

### Test A

1.  $\frac{1}{x}$    2.  $8x^3y^3$    3.  $y^6$    4.  $-5x^2y$

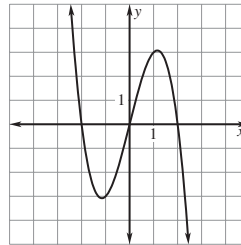
5.  $f(x) \rightarrow -\infty$  as  $x \rightarrow -\infty$   
and  $f(x) \rightarrow +\infty$  as  $x \rightarrow +\infty$ ;

<b>x</b>	-2	-1	0	1	2
<b>y</b>	-5	7	1	-5	7



6.  $f(x) \rightarrow +\infty$  as  $x \rightarrow -\infty$   
and  $f(x) \rightarrow -\infty$  as  $x \rightarrow +\infty$ ;

<b>x</b>	-2	-1	0	1	2
<b>y</b>	0	-3	0	3	0



7.  $2x^2 - 2x + 2$    8.  $4x^2 - y^2$    9.  $x^3 + 1$

10.  $(5x + 1)(5x - 1)$    11.  $(x + 1)(x^2 - x + 1)$

12.  $4x^2y(3x^2y^2 + 5y - 6)$    13. 4, -4

14. 2, -2, 3, -3   15. 1, -1, -4

16.  $x^2 + 2x - 3$    17.  $2x^2 + 8x + 8$

18. Possible zeros: 1, -1, 3, -3; Zeros: -1, -3

19. Possible zeros: 1, -1, 2, -2, 4, -4, 8, -8

Zeros: -4, 1, 2

20.  $f(x) = x^3 + 2x^2 - 11x - 12$

21.  $f(x) = x^2 - 7x + 12$    22. -1.29, 2, 3.24

23. x-intercepts: (-3, 0), (3, 0);

local max: (0, 27); local mins: (-3, 0), (3, 0)

The graph rises to the right and to the left.

24.

