

Answer Key

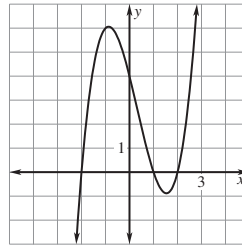
Chapter 6 Review and Assessment

Test C

1. $\frac{1}{x^3y^2}$ 2. x^5y^5 3. x^3y^3 4. x^4y^{14}

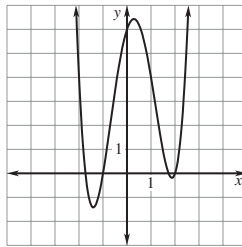
5. $f(x) \rightarrow -\infty$ as $x \rightarrow -\infty$
and $f(x) \rightarrow +\infty$ as $x \rightarrow +\infty$;

x	y
-2	0
-1	6
0	4
1	0
2	0



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

x	y
-2	4
-1	0
0	6
1	2
2	0



7. $-x^3 + 6x^2 - 2x + 6$ 8. $x^2y^2 + xy - 12$

9. $2x^3 + 3x^2y + 3xy^2 + y^3$

10. $4(2x + y)(2x - y)$

11. $(2y + 1)(4y^2 - 2y + 1)$

12. $4(c + d)(c - d)(c + 2d)$ 13. 6, -6

14. 0, -3, 4 15. $\frac{1}{2}, \frac{3}{2}$ 16. $x^2 + x + 3$

17. $x^3 + 3x^2 - x - 1$

18. Possible zeros: $\frac{1, -1}{1, -1, 2, -2}$; Zero: $-\frac{1}{2}$

19. Possible zeros: 1, -1, 2, -2, 3, -3, 4, -4,
6, -6, 12, -12; zeros: -4, -1, 3

20. $x^3 + 6x^2 + 11x + 6$ 21. $(x^2 - 9)(x^2 + 4)$

22. 9.67, 1.93, -1.61

23. x -intercepts: (-4, 0), (4, 0);

local max: (0, 16); local min: (-4, 0), (4, 0)

The graph rises to the right and to the left.

24.

