

## Chapter 7 Test

Factor completely. (7.1), (7.2), (7.3), (7.4), (7.5), (7.6)

1.  $6x^6 + 9x^4 + 15x^2$
2.  $a^2 - b^2$
3.  $x^2 - 2xy + y^2$
4.  $2x^2 + 11x + 5$
5.  $x^2 + 3x + 2$
6.  $x^2z^2 + yz^2 + x^2 + y$
7.  $6y^3 + 16y^2 - 18y$
8.  $4a^2 - b^2$
9.  $4x^2 + 12xy + 9y^2$
10.  $2a^2 - a - 3$
11.  $x^2 - x - 12$
12.  $4a^3 + 4a + 3a^2 + 3$
13.  $t^4 + 5t^3 - 10t^2$
14.  $x^2 + y^2$
15.  $x^2 + 2xy + y^2$
16.  $8a^2 + 36a + 40$
17.  $5x^2 - 20x - 25$
18.  $10b^2 - 4b + 40b - 16$
19.  $r^7 - 2r^6 - r^4$
20.  $x^2 - 9y^2$
21.  $3y^2 - 18y + 27$
22.  $3x^2 - 13x + 12$
23.  $x^2 + 11x + 24$
24.  $x^4 + 3x^3 - xy^2 + 3y^2$
25.  $25x^5 - 35x^3 + 10x$
26.  $9a^2 - 16b^2$
27.  $9x^2 - 30xy + 25y^2$
28.  $3a^2 - 19a + 28$
29.  $x^2 - 11x + 18$
30.  $c^3 + 5c - c^2d + 5d$
31.  $-24y^4 - 25y^3 - y^2$
32.  $16a^2 - 9b^2$
33.  $a^2 - 6ab + 9b^2$
34.  $6x^2 + 5xy + y^2$
35.  $a^2 - 12a + 32$
36.  $7a^2 + 7ab + 3a + 3b$
37.  $7x^2 + 7xy + 7xz$
38.  $25y^2 - 16$
39.  $4a^2 - ab - 3b^2$
40.  $12y^2 - 3xy + 9y^2$
41.  $a^2 - 2a - 35$
42.  $2a^2 - 4a - 5a + 10$
43.  $-3xz - 3yz + 21z$
44.  $72y^2 - 50$
45.  $16x^2 - 56xy + 49y^2$
46.  $4a^2 - 13ab + 10b^2$
47.  $3x^2 + 27x - 30$
48.  $5y^3 + 20y - y^2 - 4$
49.  $4ax + 4ay + 4a$
50.  $49x^2 - 36$
51.  $b^3 + 3b + 7b^2 + 21$
52.  $12x^2 - 17x - 40$
53.  $x^2 + 4x - 21$
54.  $x^2 - 17x - 38$
55.  $-8a^3 - 24a^2b + 32a^2c$
56.  $3x^2 - 75y^2$
57.  $12y^2 - 108y + 243$
58.  $x^2 + 2xy + y^2 - 49$
59.  $4x^2 + 56x + 180$
60.  $25a^2 - 10a + 1 - b^2$
61.  $-5y^2 - 5xy + 40y$
62.  $16r^4 - 1$
63.  $36x^2 - 12x + 1$
64.  $5a^2 + 8ab + 3b^2$
65.  $x^2 - 11x + 30$
66.  $x^2 + 5x - 24$
67.  $-wy^3 + y^4 + y^3$
68.  $3x^6 - 27y^4$
69.  $16y^2 + 24y + 9$