

Exercise 5A - 8

Multiplying at Sight

A. Multiply

- ✓ 1. $(x + 2)(x + 4)$ 2. $(a + 2)(a + 5)$
3. $(y + 2)(y + 3)$ ✓ 4. $(x + 4)(x + 5)$
5. $(n + 1)(n + 7)$ 6. $(x + 5)(x - 2)$
✓ 7. $(a + 8)(a - 2)$ 8. $(c - 6)(c + 1)$
9. $(x - 3)(x - 4)$ ✓ 10. $(a - 5)(a - 9)$
11. $(x + 2)(x + 3)$ 12. $(y + 5)(y + 1)$
13. $(a + 6)(a + 2)$ 14. $(x - 4)(x - 3)$
✓ 15. $(y - 6)(y - 1)$ 16. $(x + 3)(x - 7)$
17. $(c - 9)(c + 6)$ 18. $(2x + 1)(x + 3)$
✓ 19. $(2y - 6)(4y + 1)$ 20. $(5x + 2)(3x - 1)$
✓ 21. $(2a - b)(3a + 4b)$ 22. $(7r - s)(r + 4s)$

B. Multiply

1. $(x + 4)(x + 3)$ 2. $(x + 3)(x + 5)$
3. $(x + 6)(x + 2)$ 4. $(x + 2)(x + 1)$
5. $(x - 1)(x - 2)$ 6. $(x - 6)(x - 3)$
7. $(x - 4)(x - 3)$ 8. $(a - 3)(a - 5)$
9. $(3x + 4)(3x - 4)$ 10. $(a - 1)(a + 3)$
11. $(n + 2)(n - 1)$ 12. $(3x + 2y)(2x + 3y)$
13. $(y + 6)(y - 2)$ 14. $(a + 5)(a - 3)$
15. $(4x - 3y)(x - 5y)$ 16. $(x + 2)(x - 2)$
17. $(a + b)(a - b)$ 18. $(3n + 2p)(7n - p)$

1.	2.
3.	4.
5.	6.
7.	8.
9.	10.
11.	12.
13.	14.
15.	16.
17.	18.
19.	20.
21.	22.

1.	2.
3.	4.
5.	6.
7.	8.
9.	10.
11.	12.
13.	14.
15.	16.
17.	18.

Exercise 8B – 4

Determine the slope of the line that passes through each pair of points

1. (-2, 2), (3, -3) 2. (-2, -8), (1, 4) 3. (3, 4), (4, 6)
 4. (-5, 4), (-1, 11) 5. (18, -4), (6, -10) 6. (-4, -6), (-4, -8)

Determine the value of r so the line that passes through each pair of points has the given slope.

7. (-1, r), (1, -4), $m = -5$ 8. (-2, 1), (r, 4), $m = \frac{3}{5}$ ✓ 9. (-1, 3), (-3, r), $m = -3$
 10. (3, r), (7, -2), $m = \frac{1}{2}$ 11. (r, -2), (-7, -1), $m = -\frac{1}{4}$ 12. (-3, 2), (7, r), $m = \frac{2}{3}$

Write the point-slope form of an equation of the line that passes through the give point and has the given slope.

13. (5, -2), $m = 3$ ✓ 14. (5, 4), $m = -5$ 15. (-2, -4), $m = \frac{3}{4}$
 16. (-3, 1), $m = 0$ 17. (-1, 0), $m = \frac{2}{3}$ 18. (0, 6), $m = -2$

Write the standard form of an equation of the line that passes through the given point and has the given slope.

19. (-6, -3), $m = -\frac{1}{2}$ ✓ 20. (4, -3), $m = 2$ 21. (5, 4), $m = -\frac{2}{3}$
 22. (1, 3), $m = \text{undefined}$ 23. (-2, 6), $m = 0$ 24. (6, -2), $m = \frac{4}{3}$

Find the x- and y- intercepts of the graph of each equation.

25. $3x + 2y = 6$ ✓ 26. $5x + y = 10$ 27. $2x + 5y = -11$
 28. $3y = 12$ 29. $y - 6x = 5$ 30. $x = -2$

Write an equation in slope-intercept form of a line with the given slope and y-intercept.

31. $m = -\frac{2}{5}$, $b = 2$ 32. $m = 5$, $b = -15$ 33. $m = -\frac{7}{4}$, $b = 2$
 34. $m = -\frac{4}{3}$, $b = \frac{5}{3}$ 35. $m = -6$, $b = 15$ 36. $m = 12$, $b = -24$

Find the slope and y intercept of the graph of each equation.

37. $y - \frac{3}{5}x = -\frac{1}{4}$ 38. $y = 3x - 7$ 39. $\frac{2}{3}x + \frac{1}{6}y = 2$
 ✓ 40. $2x + 3y = 5$ 41. $3y = 8x + 2$ 42. $5y = -8x - 2$

Write an equation in standard form for a line that passes through each pair of points.

43. (-1, 7), (8, -2) ✓ 44. (6, 0), (0, 4) 45. (8, -1), (7, -1)
 46. (1, 0), (0, 1) 47. (5, 7), (-1, 6) 48. (-3, -5), (3, -15)

1.	2.
3.	4.
5.	6.
7.	8.
9.	10.
11.	12.

13.	14.		
15.	16.		
17.	18.		
19.	20.		
21.	22.		
23.	24.		
25. x	y	26. x	y
27.		28.	
29.		30.	
31.		32.	
33.		34.	
35.		36.	
37. m	y	38. m	y
39.		40.	
41.		42.	
43.		44.	
45.		46.	
47.		48.	

Simplify

1. $\sqrt{18}$

2. $\sqrt{28}$

3. $\sqrt{24}$

4. $\sqrt{12}$

5. $\sqrt{16}$

6. $\sqrt{48}$

7. $\sqrt{32}$

8. $\sqrt{64}$

9. $\sqrt{56}$

10. $\sqrt{84}$

11. $\sqrt{72}$

12. $\sqrt{96}$

13. $\sqrt{52}$

14. $\sqrt{36}$

15. $\sqrt{100}$

16. $5\sqrt{56}$

17. $6\sqrt{12}$

18. $3\sqrt{32}$

19. $5\sqrt{18}$

20. $4\sqrt{24}$

21. $5\sqrt{50}$

22. $\sqrt{120}$

23. $\sqrt{160}$

24. $3\sqrt{18}$

25. $2\sqrt{25}$

26. $3\sqrt{20}$

27. $6\sqrt{48}$

28. $3\sqrt{25}$

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

Multiplying

✓ 1. $\sqrt{6} \times \sqrt{8}$

2. $\sqrt{15} \times \sqrt{5}$

3. $\sqrt{6} \times \sqrt{8}$

4. $\sqrt{7} \times \sqrt{5}$

✓ 5. $\sqrt{27} \times \sqrt{3}$

6. $\sqrt{6} \times \sqrt{12}$

7. $\sqrt{2} \times \sqrt{8}$

8. $\sqrt{3} \times \sqrt{12}$

9. $\sqrt{8} \times \sqrt{2}$

10. $\sqrt{18} \times \sqrt{6}$

11. $\sqrt{10} \times \sqrt{2}$

12. $\sqrt{5} \times \sqrt{30}$

✓ 13. $\sqrt{8} \times 2\sqrt{6}$

14. $2\sqrt{5} \times 5\sqrt{15}$

15. $3\sqrt{6} \times 2\sqrt{3}$

16. $2\sqrt{3} \times \sqrt{8}$

✓ 17. $2\sqrt{14} \times 3\sqrt{7}$

18. $2\sqrt{6} \times 4\sqrt{10}$

19. $3\sqrt{2} \times \sqrt{12}$

20. $\sqrt{15} \times \sqrt{10}$

21. $4\sqrt{15} \times 2\sqrt{6}$

22. $4\sqrt{12} \times 3\sqrt{3}$

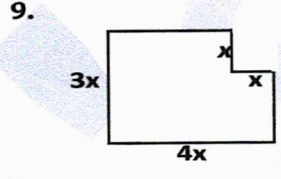
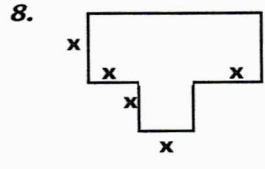
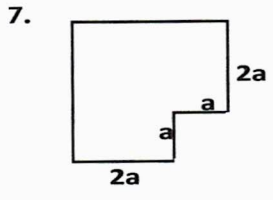
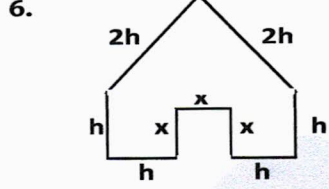
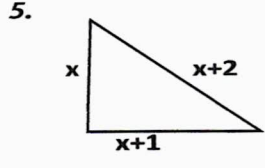
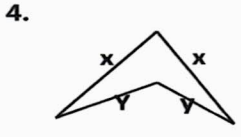
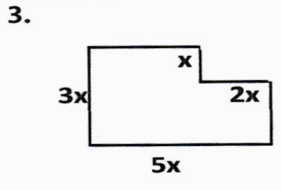
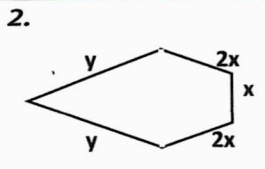
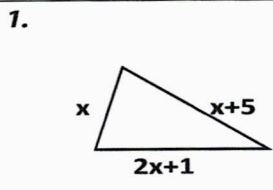
23. $\sqrt{20} \times 5\sqrt{2}$

24. $6\sqrt{3} \times \sqrt{18}$

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24

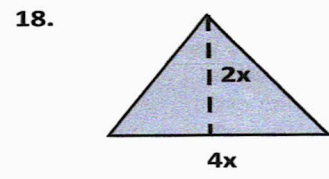
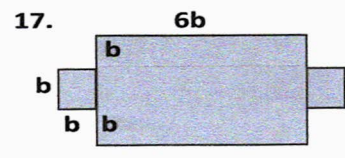
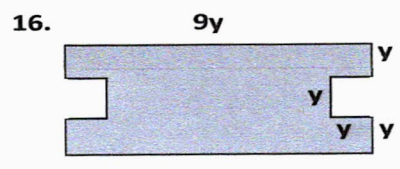
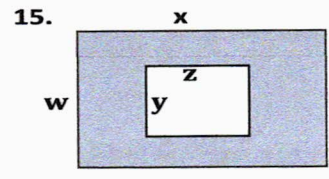
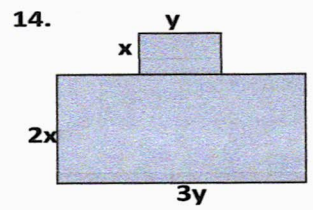
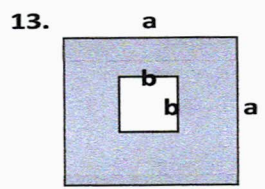
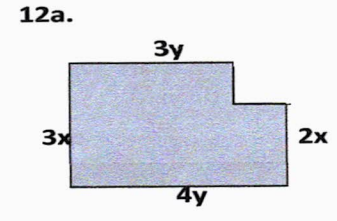
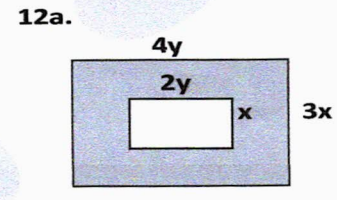
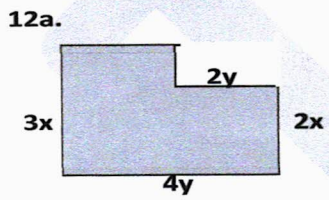
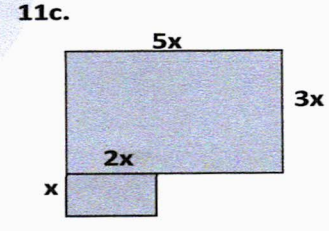
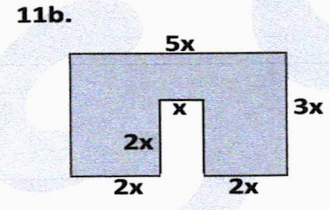
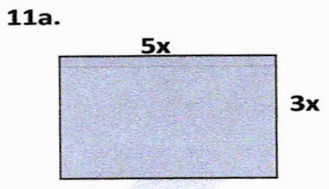
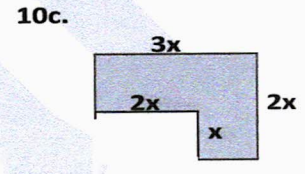
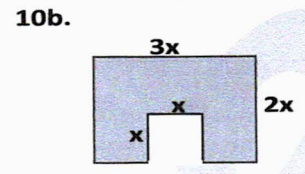
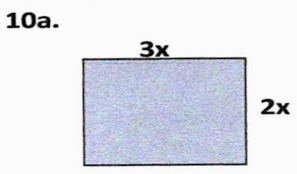
Exercise 5B - 7

A. Find the perimeter



1.
2.
3.
4.
5.
6.
7.
8.
9.

B. Find the area of the shaded figure. Give your answer in terms of the variable



10a.
10b.
10c.
11a.
11b.
11c.
12a.
12b.
12c.
13.
14.
15.
16.
17.
18.

