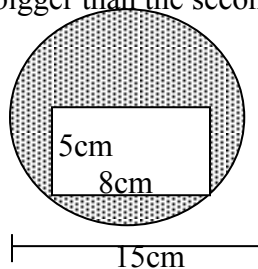


Section 3.2 Exercises Part A

4.2

1. 45 is 12 more than 3 times a number. What is the number?
2. 25 less than 7 times a number is 108. What is the number?
3. Two numbers add to 251 and the second is 41 bigger than the first. What are the two numbers?
4. Two numbers add to 336 and the first is 124 bigger than the second. What are the two numbers?

5. Find the area of the shaded region:



6. I have created a triangular garden such that the largest side is 8m less than twice the smallest and the medium side is 12m larger than the smallest side. If the total perimeter of the garden is 104m, what are the lengths of the three sides?
7. If a rectangle's length is 5 more than 3 times the width and the perimeter is 58 mm what are the dimensions of the rectangle?
8. If a parallelogram has an area of 258.9 cm^2 and a base of 23.2 cm, how tall is it?
9. Find the missing variable for a trapezoid:

$$A = 68 \text{ ft}^2$$

$$b =$$

$$h = 4 \text{ ft}$$

$$B = 21 \text{ ft}$$

Solve.

4.3

- | | | |
|-----------------------------|-------------------------------|--------------------------|
| 10. $7p + 13 = 33 - 4p$ | 11. $5n + 48 = 7n - 2(n - 2)$ | 12. $5x - 10 = 7(x - 2)$ |
| 13. $3x - 7 = 12x$ | 14. $5x - 7(x+3) = -2x - 21$ | 15. $.06x = 15 - .18x$ |
| 16. $.8(7m - 2) = 9.5m + 1$ | 17. $.2q - 7 + 2q = 3q - 5$ | 18. $12t = 45 + .4t$ |

19. $6(x - 5) - x = 5x - 20$ 20. $9x - 2(x - 3) = 15x + 7$ 21. $5x - 13x + x = 7x + 8x$

4.4

22. 18 is what percent of 58?

23. What is 87% of 54?

24. 34 is 56% of what?

25. What is 13% of 79?

26. 119 is 8% of what?

27. 23 is what percent of 74?

28. Original Price: \$92.56
Tax: 7.3%
Final Price:

29. Original Price:
Discount: 40%
Final Price: \$43.90

30. Original Price:
Tax: 5%
Final Price: \$237.50

31. Original Price: \$58.50
Discount: 30%
Final Price:

32. If the population of a town grew 21% up to 15,049, what was the population last year?

33. If the price of an object dropped 25% down to \$101.25, what was the original price?

Preparation.

34. After reading some from Section 3.3, try to solve this equation.

$$\frac{x}{7} + \frac{13}{7} = \frac{15}{7} - \frac{2x}{7}$$

35. Solve.

$$\frac{x}{3} + \frac{13}{3} = \frac{15}{3} - \frac{2x}{3}$$

Answers:

1. $x = 11$
2. $x = 19$
3. 105, 146
4. 106, 230
5. 136.71 cm^2
6. 25m, 37m, 42m
7. $w = 6\text{mm}, l = 23\text{mm}$
8. 11.16 cm
9. 13ft = b
10. $p = \frac{20}{11}$
11. No solution
12. $x = 2$
13. $x = -\frac{7}{9}$
14. All numbers
15. $x = 62.5$
16. $m = -\frac{26}{39}$
17. $q = -2.5$
18. $t = 3.879$
19. No solution
20. $x = -\frac{1}{8}$
21. $x = 0$
22. 31%
23. 46.98
24. 60.7
25. 10.27
26. 1487.5
27. 31%
28. \$99.32
29. \$73.17
30. \$226.19
31. \$40.95
32. 12,437
33. \$135