PRACTICE SET 2

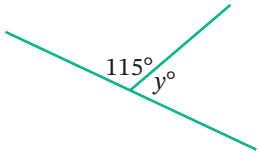
ANSWERS ON P. 563

1 Simplify each fraction. 6.01

a $\frac{12}{24}$ **b** $\frac{7}{21}$ **c** $\frac{15}{25}$

2 Find the value of each variable, giving reasons. 4.01

a



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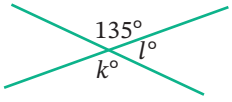

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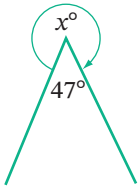
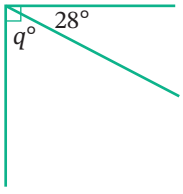
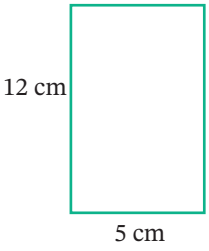


d



3 Find the area of each shape. 5.03

a



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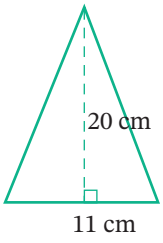

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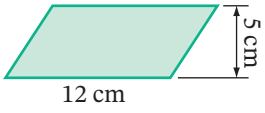

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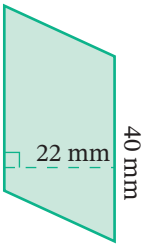

4 Draw each part of a circle. 5.07

a chord

b segment

c arc

d quadrant

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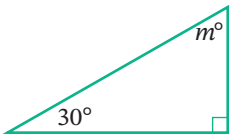
9780170453141

4.04

5 Classify each triangle:

i by sides **ii** by angles.

a



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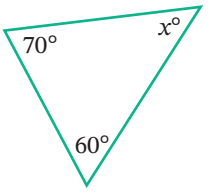

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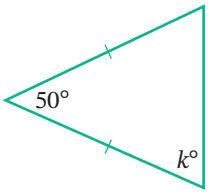

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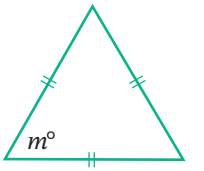


4.07

6 Find the value of each variable in question **5** above.

6.01

7 Convert each mixed numeral into an improper fraction.

a $2\frac{1}{2}$ **b** $1\frac{3}{4}$ **c** $4\frac{2}{5}$

6.04

8 Convert each percentage into:

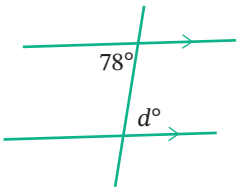
i a simple fraction **ii** a decimal.

a 25% **b** 40% **c** 85% **d** $12\frac{1}{4}\%$

4.02

9 Find the value of each variable, giving reasons.

a



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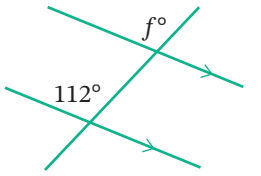

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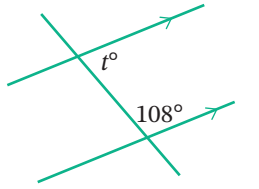


6.04

10 Convert each number into a percentage.

a 0.34 **b** $\frac{3}{4}$ **c** 0.215 **d** $\frac{5}{8}$

4.05

11 Name the (most general) quadrilateral with:

a opposite sides parallel

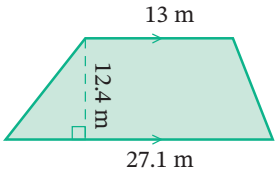
b 4 right angles

c 4 equal sides and 4 equal angles

d 2 pairs of equal adjacent sides.

12 Find the area of each shape. 5.05 5.06

a



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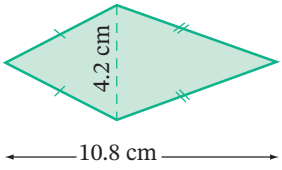

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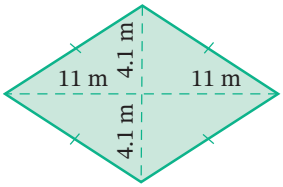


13 Convert each improper fraction into a mixed numeral. 6.01

a $\frac{11}{2}$ **b** $\frac{19}{3}$ **c** $\frac{14}{4}$

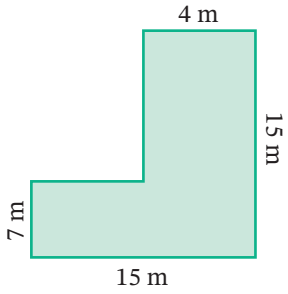
14 Evaluate each expression. 6.02 6.03

a $\frac{2}{5}+\frac{4}{5}$ **b** $\frac{1}{3}+\frac{2}{5}$ **c** $\frac{3}{5}-\frac{1}{4}$ **d** $1\frac{3}{5}+2\frac{1}{2}$

e $2-\frac{2}{3}$ **f** $\frac{1}{2}\times\frac{3}{5}$ **g** $\frac{3}{4}\times\frac{4}{5}$ **h** $\frac{4}{5}\div\frac{1}{2}$

15 Find the area of each shape. 5.04

a



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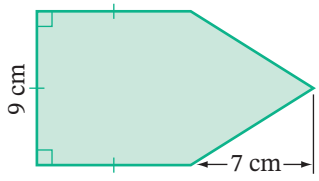


16 Find, correct to 2 decimal places, the circumference of a circle with: 5.08

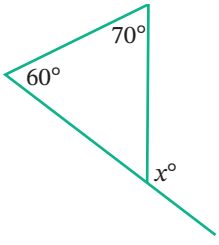
a radius 5 cm **b** diameter 7 cm

17 Find, correct to 2 decimal places, the area of a circle with: 5.09

a radius 5 cm **b** diameter 7 cm

18 Find the value of each variable, giving reasons. 4.07

a



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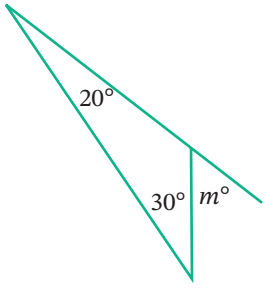

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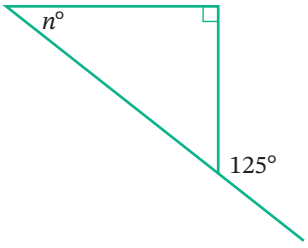

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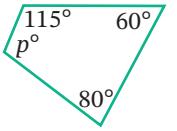
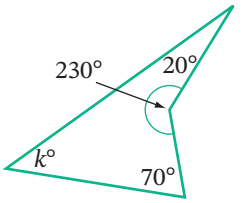
d



e



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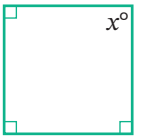
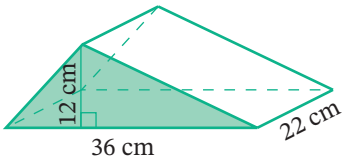


6.07 **19** School canteen prices are to increase by 15%. Find the new price for a $2 sandwich.

20 What is the capacity, in litres, of a box measuring 48 cm by 33 cm by 17 cm?

5.14 **21** Find the volume of each prism.

5.12 **a**



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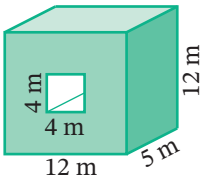


5.02 **22** Convert:

a 3.6 m^2 to cm^2

b 875 mm^2 to cm^2

6.04 **23** Arrange these numbers in ascending order: 63%, $\frac{3}{5}$, 0.67, $\frac{6}{7}$.

4.06 **24** True or false?

a The sides of a rhombus are equal.

b The diagonals of a rectangle bisect each other at right angles.

c The opposite sides of a parallelogram are equal.

d The opposite sides of a trapezium are parallel.

6.05 **25** Find:

a 2% of $15

b $\frac{2}{5}$ of 1320 kg

c $\frac{3}{4}$ of $6.40

d 25% of 1 hour (in minutes)

6.06 **26** What percentage is:

a 40 cm of 1 m?

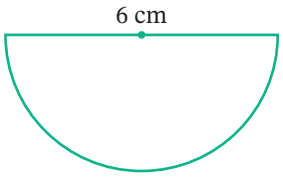
b 350 mL of 1 litre?

c 45 minutes of $1\frac{1}{2}$ hours?

6.07 **27** The population of Banksia decreased by 3.5%, from 3400 people. Find the new population.

28 Find, correct to 2 decimal places, the perimeter of each shape. 5.10

a



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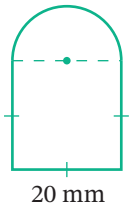
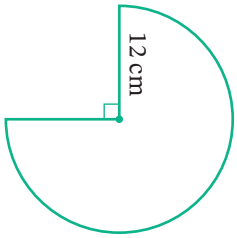


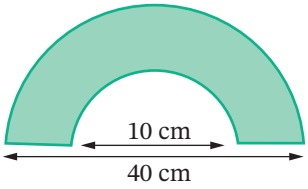
c



29 Find, correct to 2 decimal places, the area of each shape above. 5.10

30 Find the perimeter of this shape. Select the closest answer **A**, **B**, **C** or **D**. 5.10

A 109 cm **B** 77 cm **C** 737 cm **D** 129 cm



31 Find the area of the shape above, correct to one decimal place. 5.10

32 Mark saves 15% of his weekly income. If he saves $204, what is his weekly income? 6.09

33 A computer has a cost price of $1100 and a selling price of $1599. 6.10

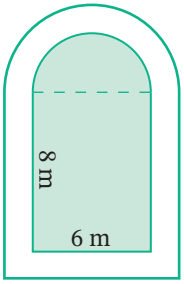
a Calculate the profit made.

b Calculate, correct to one decimal place, the percentage profit on the cost price.

34 Mr Moneybags wants to put a new garden with a path around it in the grounds of his country estate. The plan for this garden is shown on the right. Find, correct to one decimal place: 5.10

a the area of the garden

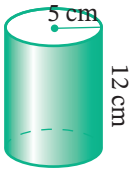
b the area of the path.



Width of path = 1.5 m

35 Find, correct to one decimal place, the volume of each cylinder. 5.13

a



b