

Measurement practice

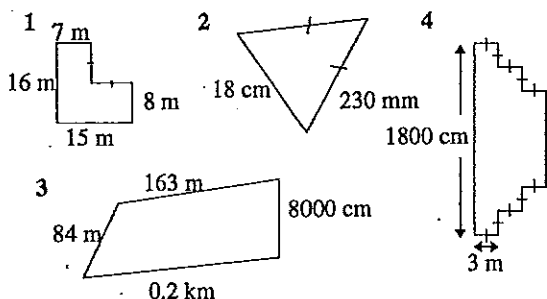
Skill 6.1 Converting units

Complete the conversions:

- 1 3.09 km = _____ m
- 2 3.6 m = _____ cm
- 3 14.02 cm = _____ mm
- 4 86 mm = _____ cm
- 5 284 cm = _____ m
- 6 5893 m = _____ km
- 7 4 km = _____ cm
- 8 3.9 m = _____ mm
- 9 21 800 mm = _____ m
- 10 810 400 cm = _____ km
- 11 14 L = _____ mL
- 12 5 kL = _____ L
- 13 600 mL = _____ L
- 14 8000 L = _____ kL
- 15 7 t = _____ kg
- 16 4.8 kg = _____ g
- 17 15 000 kg = _____ t
- 18 80 000 g = _____ kg
- 19 5 years = _____ months
- 20 8 days = _____ hours
- 21 16 mins = _____ secs
- 22 1380 secs = _____ mins
- 23 5760 mins = _____ hrs
- 24 1872 hrs = _____ days
- 25 5964 days = _____ weeks

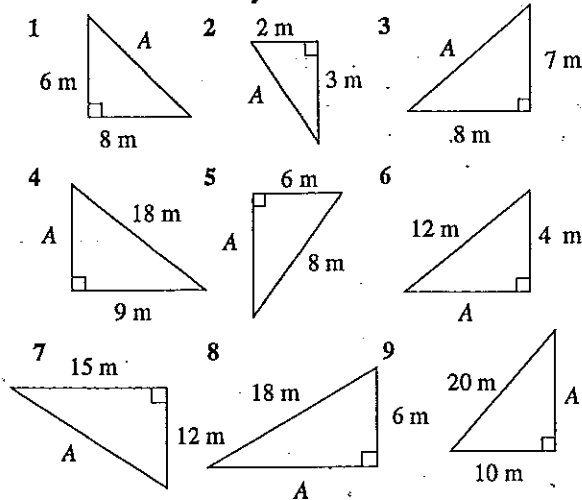
Skill 6.2 Perimeter of shapes with straight sides

Find the perimeter of these shapes:



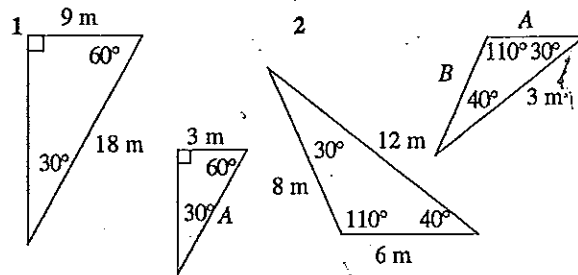
Skill 6.3 Pythagoras' theorem

Using Pythagoras' theorem find the unknown lengths in these right angled triangles to 2 decimal places where necessary.



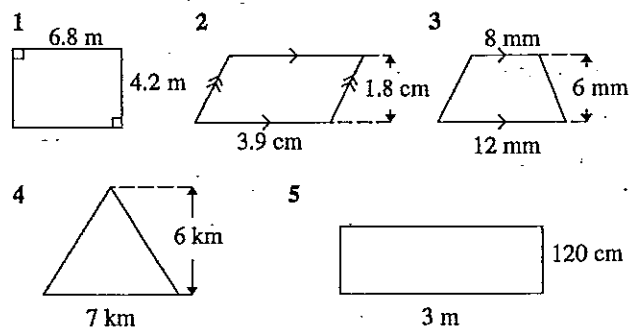
Skill 6.4 Similar triangles

Use similar triangles to find the unknown lengths:



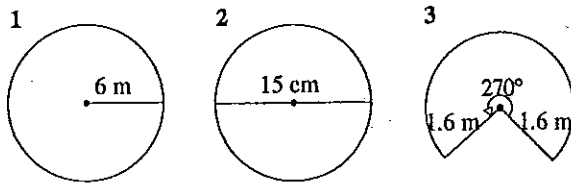
Skill 6.5 Area of shapes with straight sides

Find the area of these shapes:



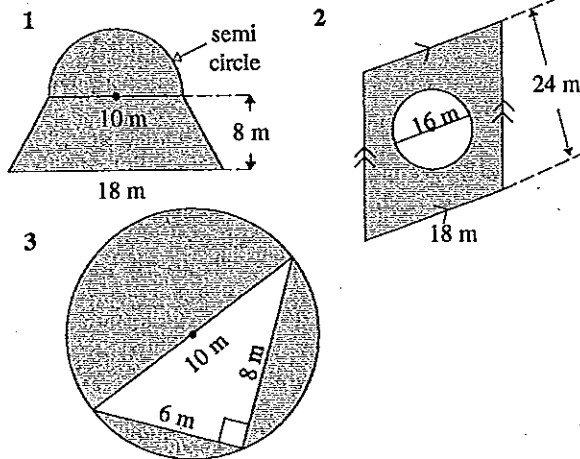
Skill 6.6 Circumference and area of circles

Find the circumference and area of these circles.
Answers are to be given to 2 decimal places.



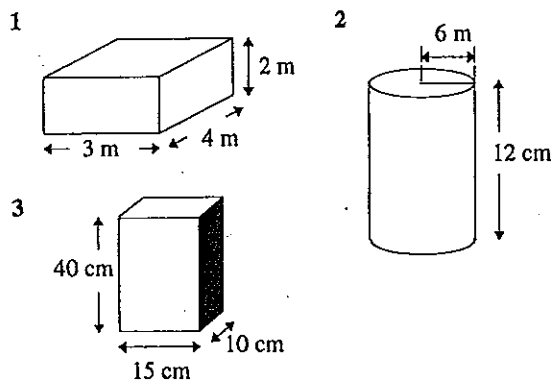
Skill 6.7 Composite areas

Find the shaded areas:



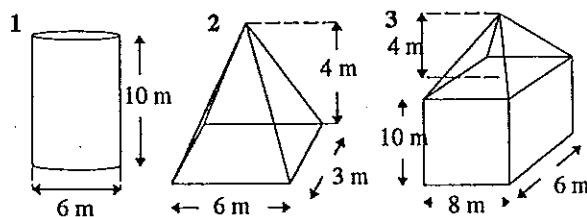
Skill 6.8 Surface area

Find the surface area of these solids:



Skill 6.9 Volume of solids with straight sides

Find the volume of these solids:



Skill 6.10 Working with time

- (a) What is the time 83 minutes after:
- 1 3:04 am
 - 2 6:38 am
 - 3 5:48 pm
- (b) What was the time 126 minutes before:
- 1 8:31 am
 - 2 6:29 pm
 - 3 11:12 am
- (c) Frank works part time at the local garage. His normal rate of pay is \$14.40 per hour. Use this time sheet to determine his pay for the week:

Frank	Rate	Hours
Monday	Normal	3
Tuesday	Normal	-
Wednesday	Normal	-
Thursday	Normal	2
Friday	Double time	$1\frac{1}{2}$
Saturday	Double time	$2\frac{1}{2}$
Sunday	Double time	3

- (d) Tony has to work out Frank's take home pay after taking out tax. Tax is taken out at the rate of 20%.
For Frank's week in part (c) how much will he take home?

Answers

Skill 6.1

- | | | | |
|--------|----------|-----------|---------|
| 1 3090 | 2 360 | 3 140.2 | 4 8.6 |
| 5 2.84 | 6 5.893 | 7 400 000 | 8 3900 |
| 9 21.8 | 10 8.104 | 11 14 000 | 12 5000 |
| 13 0.6 | 14 8 | 15 7000 | 16 4800 |
| 17 15 | 18 80 | 19 60 | 20 192 |
| 21 960 | 22 23 | 23 96 | 24 78 |
| 25 852 | | | |

Skill 6.2

- 1 62 m 2 64 cm 3 527 m 4 54 m

Skill 6.3

- | | | |
|-----------|-----------|-----------|
| 1 10 m | 2 3.61 m | 3 10.63 m |
| 4 15.59 m | 5 5.29 m | 6 11.31 m |
| 7 19.21 m | 8 16.97 m | 9 17.32 m |

Skill 6.4

- 1 $A = 6$ m 2 $A = 2$ m, $B = 1.5$ m

Skill 6.5

- | | | |
|------------------------|--|----------------------|
| 1 28.56 m ² | 2 7.02 m ² | 3 60 mm ² |
| 4 21 km ² | 5 3.6 m ² or 36 000 cm ² | |

Skill 6.6

- 1 Perimeter = 37.70 m, Area = 113.10 m²
2 Perimeter = 47.12 cm, Area = 176.71 m²
3 Perimeter = 7.54 m, Area = 6.03 m²

Skill 6.7

- 1 151.27 m² 2 230.94 m² 3 54.54 m²

Skill 6.8

- 1 52 m² 2 678.8 m² 3 1900 m²

Skill 6.9

- 1 282.74 m³ 2 24 m³ 3 544 m³

Skill 6.10

- | | | |
|---------------|--------------|-----------|
| (a) 1 4:27 am | 2 8:01 am | 3 7:11 pm |
| (b) 1 6:25 am | 2 4:23 pm | 3 9:06 am |
| (c) \$273.60 | (d) \$218.88 | |