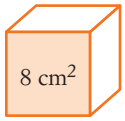
WORKSHEET

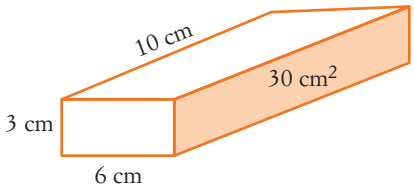
Surface area of solids

1 Calculate the surface area of each of the following:

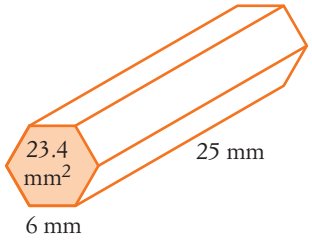
a A cube with the area of each face equal to 8 cm^2



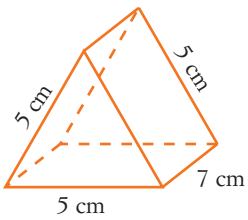
b



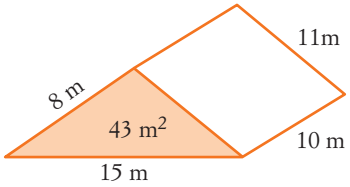
c A regular hexagonal prism



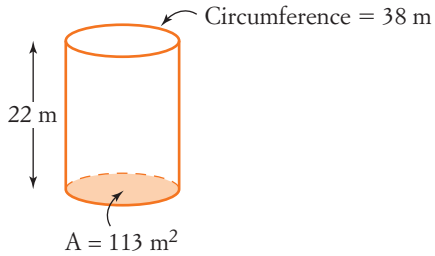
d A triangular prism. The area of each triangular face is 10.8 m^2.



e

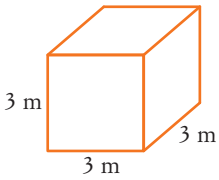


f A cylinder with measurements as shown

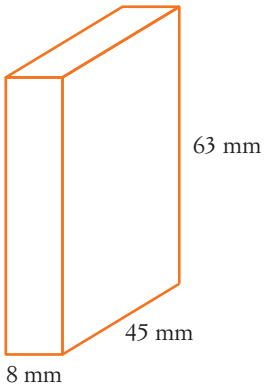


2 Using the measurements given in the diagrams, calculate the surface area of each prism. Answer to one decimal place where appropriate.

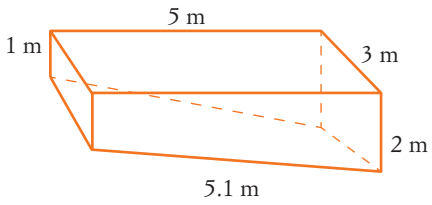
a



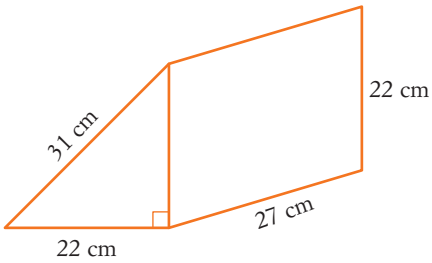
b



c



d



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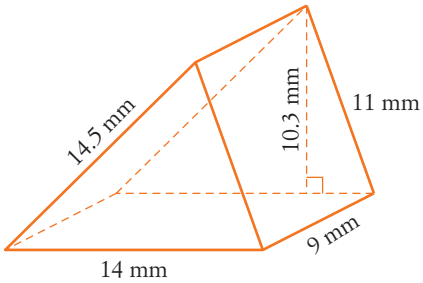

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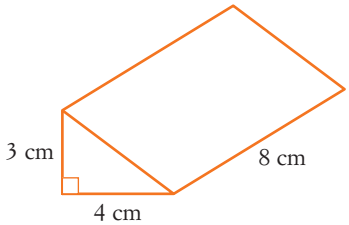
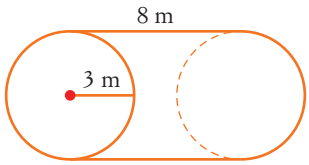


g



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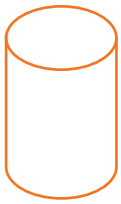
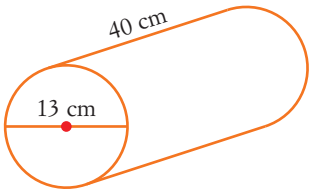


i



3 Answering to two decimal places, calculate the surface area of each of the following:

a a cube with side length 4.3 m

b a rectangular prism with length 3.1 m, width 4.7 m and height 6.5 m

c a cylinder with radius 8 cm and height 11 cm

d a right triangular prism with unknown hypotenuse length, but the other two sides of the triangular ends are 5 cm and 12 cm long. The length of the prism is 18 cm.

e a cylinder with diameter 65 mm and height 118 mm.

Answers

1 **a** 48 cm^2
b 216 cm^2
c 946.8 mm^2
d 126.6 cm^2
e 426 m^2
f 1062 m^2

2 **a** 54 m^2
b 7398 mm^2
c 54.3 m^2
d 2509 cm^2
e 499.7 mm^2
f 108 cm^2
g 207.3 m^2
h 1696.5 cm^2
i 1899.1 cm^2

3 **a** 110.94 m^2
b 130.54 m^2
c 955.04 cm^2
d 600 cm^2
e 30 732.63 mm^2