

EOS 1 Revision: Unit 15 Distance, Area and Volume

48 marks from 48 questions

Question 1

5 km is further than 5 miles.

Is this statement true or false?

- a. ☐ True
- b. ☐ False

Question 2

67 miles is further than 67 kilometres.

Is this statement true or false?

- a. ☐ True
- b. ☐ False

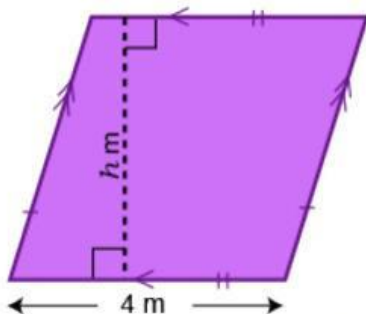
Question 3

Which of these methods can you use to convert miles to kilometres?

Select all correct answers.

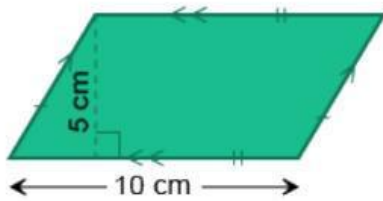
- a. ☐ Multiply by $\frac{8}{5}$
- b. ☐ Multiply by $\frac{5}{8}$
- c. ☐ Divide by 1.6
- d. ☐ Multiply by 0.625

Question 4



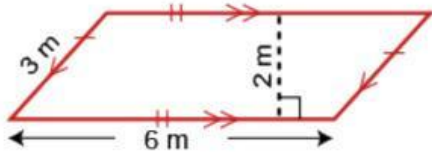
The length of the base is m.

Question 5



The area of the parallelogram is cm^2 .

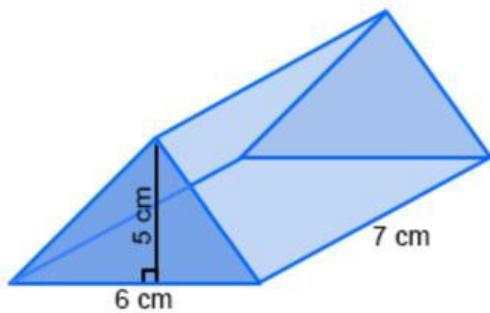
Question 6



The perpendicular height is m

The base is m

Question 7



What is the area of the base of this triangular prism?

cm^2

Question 8

A triangular prism has a length of 8 cm and the area of cross-section is 7 cm^2 .

Complete the calculation to find the volume of the prism.

Volume = area of cross-section $\times$ length

= 8×7

= cm^3

Question 9

A cuboid with a volume of 96 cm^3 is cut into two equal triangular prisms.

What is the volume of each triangular prism?

cm^3

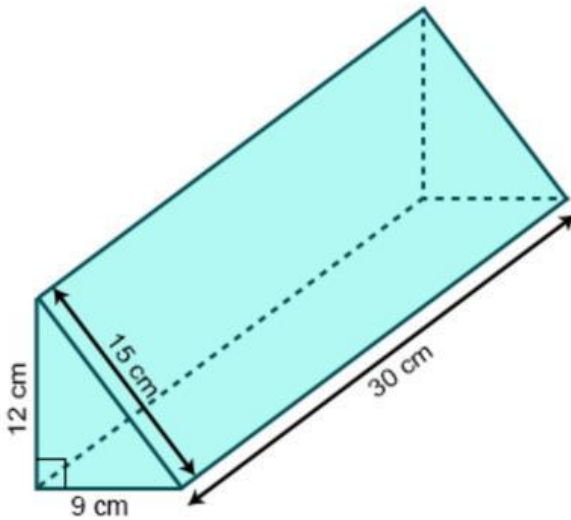
Question 10

Surface area is measured in:

a. ☐ square units

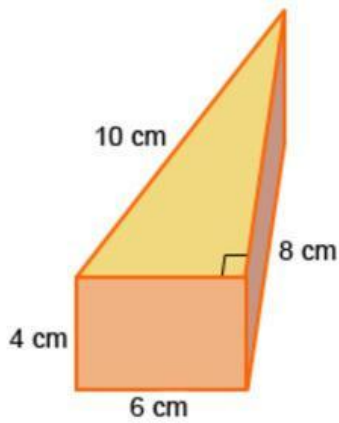
b. ☐ cubic units

Question 11



How many rectangular faces are there in this prism?

Question 12



Calculate the area of the triangular face.

Area = cm^2

Question 13

Enter both numbers to complete this conversion from kilometres to miles.

$$152 \text{ km} = 152 \times \frac{\text{input}}{8} = \text{input} \text{ miles}$$

Question 14

Which of these distances is the furthest?

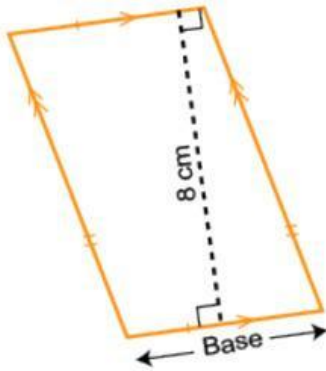
- a. ☐ 210 miles
- b. ☐ 358 kilometres
- c. ☐ 218 miles

Question 15

Enter a number to complete this conversion from miles to kilometres.

$$80 \text{ miles} = 80 \times 1.6 = \text{input} \text{ km}$$

Question 16



The area of the parallelogram is 40 cm^2 .

If the perpendicular height is 8 cm, then the length of the base is:

cm

Question 17

A parallelogram has a base of length 15.2 cm and a height of 6 cm.

What is the area?

cm^2

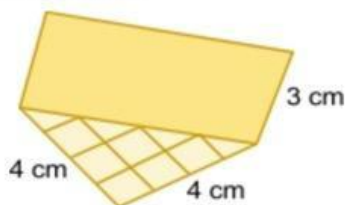
Question 18

A parallelogram has an area of 224 cm^2 .

Which of these could be the measurements of the parallelogram?

- a. ☐ Base 14 cm and height 18 cm
- b. ☐ Base 28 cm and height 8 cm
- c. ☐ Base 16 cm and height 12 cm

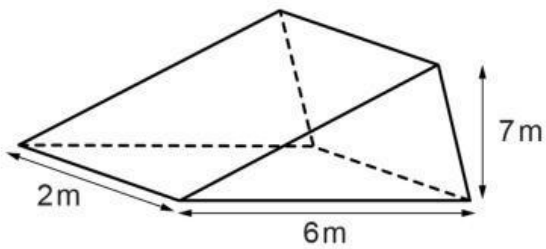
Question 19



The base of this prism is a right-angled triangle. Calculate its volume.

Volume = cm^3

Question 20



Complete the working to find the volume of this triangular prism.

$$\text{Area of cross-section} = \frac{1}{2} \times b \times h$$

$$= \frac{1}{2} \times 6 \times 7$$

$$= 21 \text{ cm}^2$$

$$\text{Volume} = \text{area of cross-section} \times \text{length}$$

$$= \boxed{} \times \boxed{}$$

$$= \boxed{} \text{ cm}^3$$

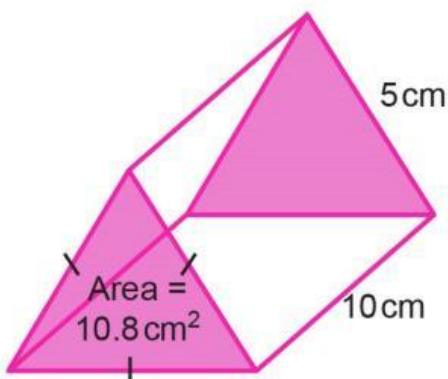
Question 21

A triangular prism has a base of 5 cm, a height of 12 cm and a length of 3 cm.

What is the volume of the triangular prism?

$$\boxed{} \text{ cm}^3$$

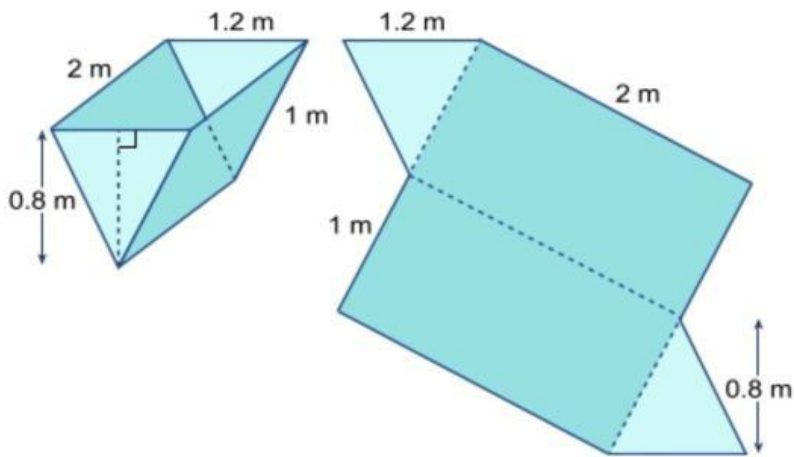
Question 22



What is the total surface area of the rectangular faces?

$$\boxed{} \text{ cm}^2$$

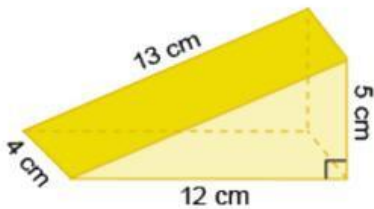
Question 23



The object on the left is a net. (It has no top.)

Number of faces =

Question 24



Area of the **largest** rectangular face = cm^2

Question 25

How many metres is the same as 5 miles?

metres

Question 26

How many kilometres is 34.5 miles?

km

Question 27

How many miles difference is there between 840 kilometres and 525 miles?

miles

Question 28

A parallelogram has an area of 56 cm^2 . The base is 14 cm.

What is the height of the parallelogram?

cm

Question 29

A trapezium has two parallel sides of length 5 cm and 9 cm. It has a height of 8 cm.

What is the area?

cm^2

Question 30

A parallelogram has an area of 72 cm^2 . The height is 4.5 cm.

What is the length of the base?

cm

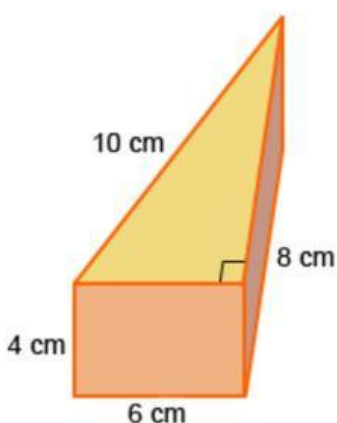
Question 31

A compound prism is made by joining a triangular prism and a cuboid.

They both have a base of 6 cm, a height of 7 cm and a length of 13 cm.

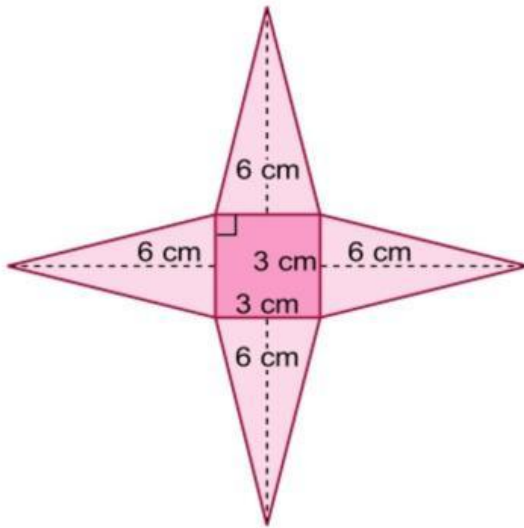
What is the volume of the compound prism.

cm^3

Question 32

Calculate the surface area of the triangular prism.

Surface area = cm^2

Question 33

The net of the square pyramid shows its dimensions.

Calculate the surface area.

Surface area = cm^2

Question 34

A square pyramid has a slant height of 9 cm and a base area of 64 cm^2 .

What is the total surface area of the pyramid?

Surface area = cm^2

Question 35

The horizontal width of the USA is 2680 miles.

The horizontal width of Canada is 9306 km.

What is the difference between the width of Canada and the width of the USA in kilometres?

Difference = km

Question 36

A kilometre is 1000 m.

A mile is 1760 yards.

Enter a number to complete this conversion of 13 km into yards.

13 km = yards

Question 37

A kilometre is 1000 m.

A mile is 1760 yards.

A yard is 3 feet.

Convert 450 m into feet.

450 m = feet

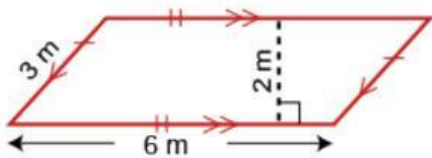
Question 38

It takes a horse an hour to gallop 42 km.

How many miles can the horse gallop in 15 minutes?

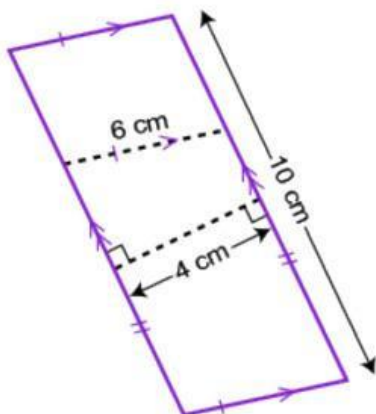
Give your answer to one decimal place.

Distance = miles

Question 39

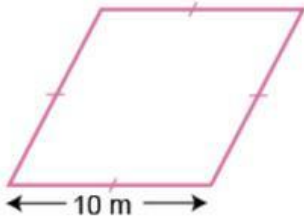
The area of the parallelogram is:

- a. ☐ 12 m
 - b. ☐ 12 m²
 - c. ☐ 12 m³
-

Question 40

The area of the parallelogram is cm²

Question 41



Calculate the area of this rhombus given that the perpendicular distance between the opposite sides is 8.2 m.

m²

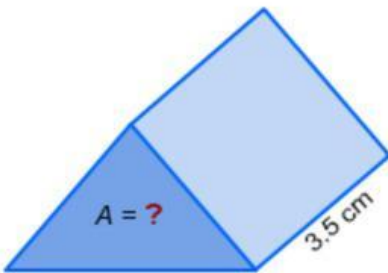
Question 42

A trapezium has an area of 108 cm². One of the parallel sides has a length of 7 cm and the height is 9 cm.

What is the length of the other parallel side?

cm

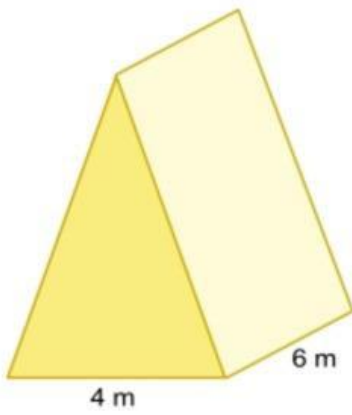
Question 43



Volume = 70 cm³

Area of base, A = cm²

Question 44



The volume of the triangular prism is 66 m^3 . Calculate the height of the triangular face.

Height of triangle = m

Question 45

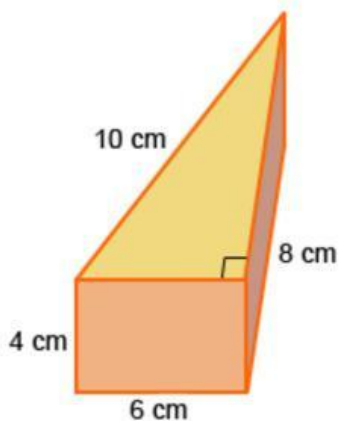
A triangular prism has a volume of 324 m^3 .

The base is 12 m and the length is 9 m.

What is the height of the cross-section?

m

Question 46



A building is built in the shape of this triangular prism. The three vertical walls are to be painted. What percentage of the total surface area is this?

Give your answer to one decimal place.

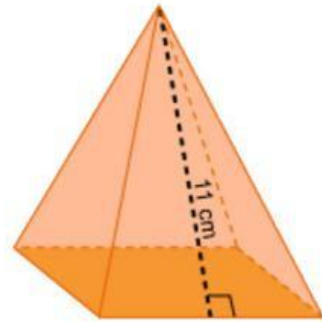
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Question 47

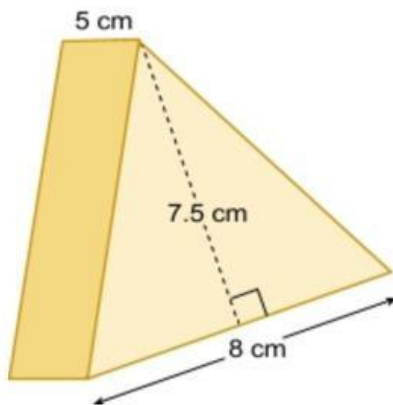
The combined surface area of all of the triangular faces is 110 cm^2 .

Calculate the total surface area of the square, regular pyramid.

Surface area of pyramid = cm^2



Question 48



Surface area of triangular prism = cm^2