

y6math3 Hard

15 Difficult Worded Problems

Show all working out in the space provided.

Name: _____ Date: _____ Score: ____ / 15

Question 1:

A rectangular garden has a length of 12 m and a width of 8 m. What is its area? If a path of width 1 m is added around the outside, what is the new total area including the path?

Working out:

Question 2:

A triangle has a base of 15 cm and a height of 10 cm. Calculate its area. If the base is doubled and the height is halved, what is the new area?

Working out:

Question 3:

A square has an area of 64 cm^2 . What is its side length? If each side is increased by 3 cm, what is the new area?

Working out:

Question 4:

A rectangular field is 45 m long and 30 m wide. A 5 m wide path runs around the inside edge of the field. What area of the field is NOT part of the path?

Working out:

Question 5:

A rectangle has an area of 96 cm^2 and a width of 8 cm. What is its length? If both dimensions are multiplied by 1.5, what is the new area?

Working out:

Question 6:

A composite shape is made by joining a $6 \text{ cm} \times 6 \text{ cm}$ square to a rectangle of width 6 cm and length 10 cm. What is the total area?

Working out:

Question 7:

A parallelogram has a base of 12 cm and a height of 7 cm. What is its area? If a triangle cut from one end reduces the area by 21 cm^2 , what remains?

Working out:

Question 8:

A rectangular prism has a base area of 24 cm^2 and a height of 10 cm. What is its volume? If the height is increased by 25%, what is the new volume?

Working out:

Question 9:

A circle has a radius of 7 m. Use 3.14 as pi. Calculate its area. If the radius is doubled, how many times larger is the new area?

Working out:

Question 10:

A trapezium has parallel sides of 10 cm and 6 cm, and a height of 5 cm. What is its area? If both parallel sides are increased by 2 cm, what is the new area?

Working out:

Question 11:

A rectangular wall is 3.6 m high and 5.4 m wide. One litre of paint covers 4.5 m^2 . How many litres are needed to paint the wall? If paint costs \$12 per litre, what is the total cost?

Working out:

Question 12:

A cube has a surface area of 150 cm^2 . What is the length of one side? If the cube is cut into 8 smaller cubes of equal size, what is the surface area of one small cube?

Working out:

Question 13:

A rectangular garden bed is 4 m by 3 m. A 0.5 m wide border of flowers is planted around the outside. What is the area of the flower border?

Working out:

Question 14:

A shape consists of a rectangle 8 cm $\times$ 5 cm with a 3 cm $\times$ 3 cm square cut out from one corner. What is the remaining area? If the square cut-out is doubled in size, what is the new remaining area?

Working out:

Question 15:

A piece of paper is 30 cm long and 20 cm wide. A 4 cm wide strip is cut from all four edges. What is the area of the remaining rectangle? What percentage of the original paper is wasted?

Working out:
