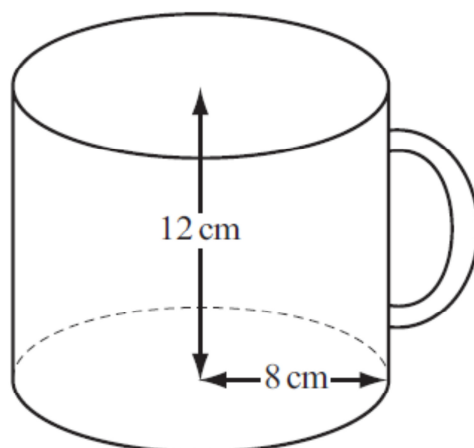


British International School  
IGCSE Program - Year 11  
Quiz # 2 – Logro 2

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Time: 30 minutes



NOT TO  
SCALE

The diagram shows a large mug in the shape of a cylinder, open at the top. The internal radius of the mug is 8 cm and the internal height is 12 cm.

- (a) Calculate the volume of water the mug holds when filled to the top.

Answer(a) \_\_\_\_\_  $cm^3$  [2]

- (b) Calculate the **total** surface area of the inside of the mug.

Answer(b) \_\_\_\_\_  $cm^2$  [3]

(c)  $500 \text{ cm}^3$  of water is poured into the mug.

Calculate the depth of water in the mug.

Give your answer in centimetres correct to the nearest millimetre.

Answer (c) \_\_\_\_\_ cm [3]

(d) The mug shown in the diagram is mathematically **similar** to a smaller mug. The volume of the smaller mug is  $\frac{1}{8}$  of the volume of the large one.

Find the radius of the smaller mug.

Answer (d) \_\_\_\_\_ cm [2]

[Total Marks .... 10 ]