

Name: _____

Unit 6 & 7

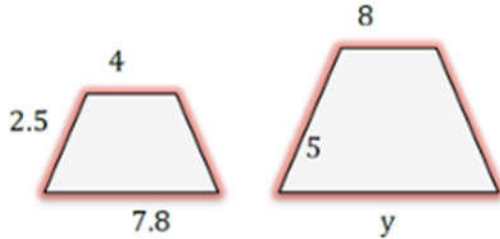
Date: _____

WS #1 Similarity & Probability

11	100

1. Determine the missing side lengths

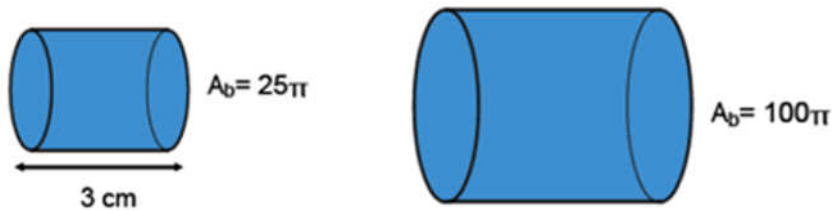
a.



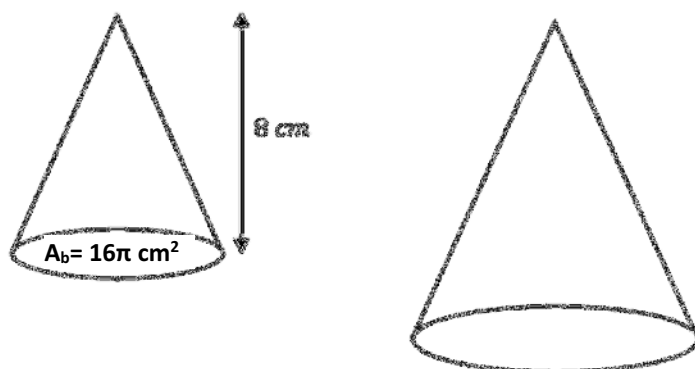
b.



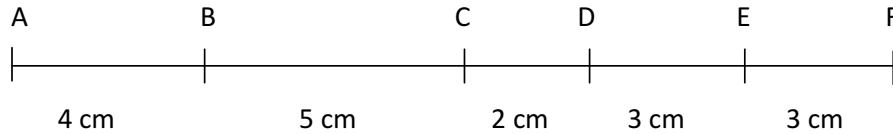
2. The 2 cylinders below are similar. What is the volume of the larger cylinder?

3. Two square-based prisms are similar. The smaller prism has a height of 20 cm and the area of the base is 40 cm². The area of the base of the larger prism is 90 cm². What is the volume of the larger prism?

4. The two cones below have a similarity ratio of 1:4. Determine the volume of the larger cone.



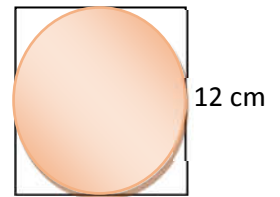
5. We randomly choose a point on segment $\overline{AF}$ below. What is the probability that this point will be located on $\overline{BC}$?



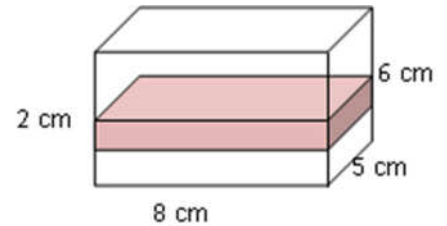
6. We randomly choose a point on the sides of a rectangle ABCD on the right. What is the probability that it will be located on side AD?



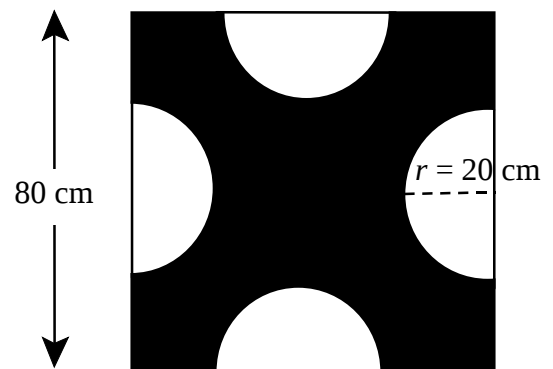
7. We randomly choose a point in the square on the right. What is the probability that it will be located in the coloured disk?



8. We randomly choose a point in the right prism on the right. What is the probability that it will be located in the coloured prism?



9. Four white half-circles of radius 20 cm each were painted on a black square target measuring 80 cm a side. If all darts thrown reach the target; What is the probability that a randomly thrown dart hits the **black** section of the target?



20%

25%

39%

61%