

AVU Paper 2 - Practice 5

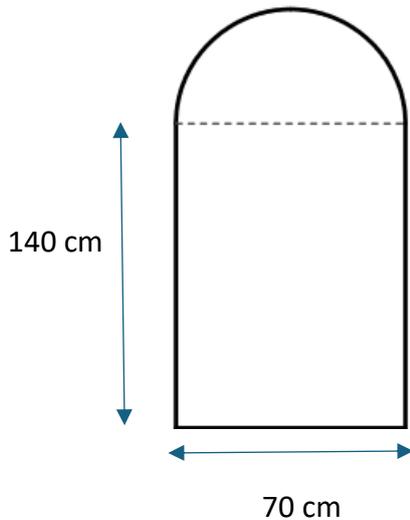
1. Solve $8x - 4 = 6x + 2$

2. Find the total area of the shape below,

Note: Area of a half circle: $A_1 = \pi r^2 \div 2$, radius = 35 cm

Area of a rectangle: $A_2 = L \times B$

Total Area: $A_{total} = A_1 + A_2$



3. (a) Complete the table below

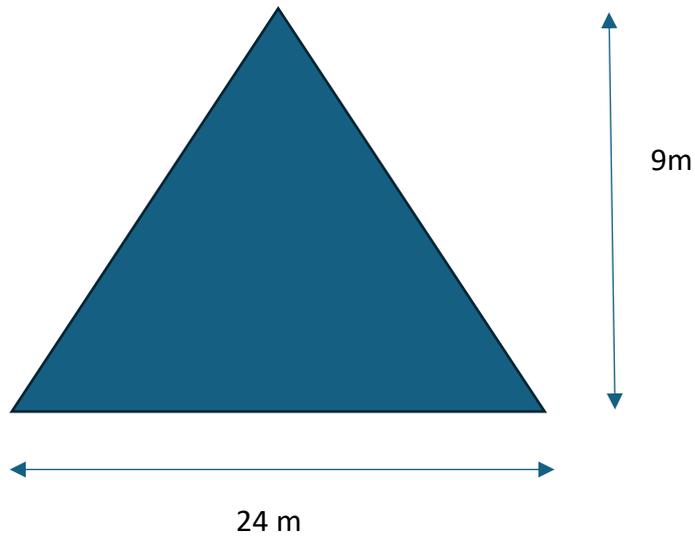
E	10	11	12	13	14	15
F	53	59	65	?	?	?

(b) Write down a formula that connects C and D, $F = ?E - ?$

(c) If $F = 143$, use the formula to find E

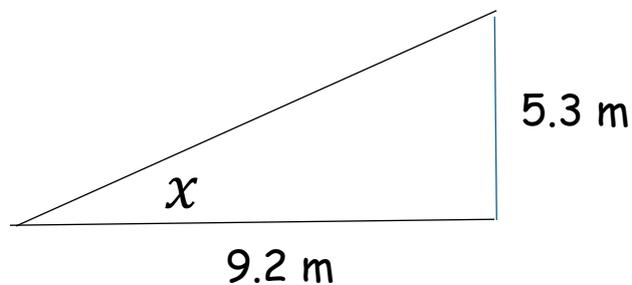
4. Use the formula $S = \frac{D}{T}$, to find the speed if $D = 112$ km and $T = 5$ hours 45 minutes (note, change to decimal time first, eg divide 45 by 60)

5.



Note: Split the triangle in two then use Pythagoras $a^2 = b^2 + c^2$ to find the perimeter of the above shape (distance all the way round the triangle)

6.



Use SOH - CAH - TOA to find angle x (Draw triangle, label sides, write SOH-CAH-TOA, tick and solve!)

7. Box A contains 12 red and 19 white stones

Box B contains 17 red and 24 white stones

By converting both to decimals (divide top by bottom) which box has the greatest probability of picking a red stone?