MU123 quiz answers

Discovering mathematics

Answer 1

$3° - (-5°) = 8°$C.

Answer 2

(c) $30 \, \text{cm}$ by $30 \, \text{cm}$ is probably the best choice, as this size would give the most flexibility as generally rooms are at least $2 \, \text{m}$ by $3 \, \text{m}$.

Reasons for rejecting the others are:

(a) too small

(b) too large (may be larger than the room!)

(d) much too large, more like a very large field.

Answer 3

(a) $(-2) \times (-1.5) = 2 \times 1.5 = 3$

(b) $\dfrac{8}{20} + \dfrac{15}{20} = \dfrac{23}{20} = 1\dfrac{3}{20}$

(c) $\dfrac{2}{3} \times \dfrac{9}{5} = \dfrac{18}{15} = \dfrac{6}{5} = 1\dfrac{1}{5}$

(d) $2.13 + (-5.74) = 2.13 - 5.74 = -3.61$

(e) $(-27) \div 3 = -9$

(f) $5^2 = 5 \times 5 = 25$

Answer 4

15% of $310 = \frac{15}{100} \times 310 = 0.15 \times 310 = 46.5$.

So you would pay $£310 - £46.50 = £263.50$.

Answer 5

$22 \div 1.42 = 15.49295775$, so the cost is about $£15.49$.

Answer 6

Area of the garden is $7 \times 5 = 35 \, \text{m}^2$

Area of the flower bed is
$\pi \times (1.5)^2 = 3.14159\ldots \times (1.5)^2 = 7.0685\ldots \approx 7.069 \, \text{m}^2$

Area of lawn is $35 - 7.069 = 27.931 \, \text{m}^2$

Amount of seed required is

$400 \times \dfrac{27.931}{8} = 1396.5\ldots = 1400 \, \text{g}$ (to the nearest $100 \, \text{g}$).

Answer 7

Since it is a right-angled triangle, one angle is $90°$. The angles of a triangle add to $180°$ which gives $180° - (28° + 90°) = 62°$ as the size of the third angle.

<div align="center">[END OF ANSWERS]</div>