Cambridge O Level MATHEMATICS (SYLLABUS D) 4024

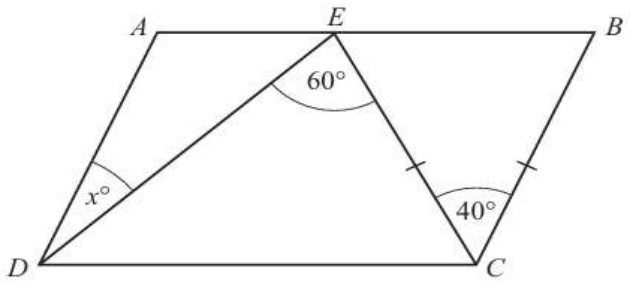
---

https://babacambridgesolutions.com

Paper 1 Non-calculator **October/November 2025**

Questions (3-4)

3



NOT TO SCALE

ABCD is a parallelogram.
E is a point on *AB* and *EC* = *BC*.
Angle *ECB* = 40° and angle *DEC* = 60°.

Find the value of *x*.

x = ... [4]

Solution:

As BCE is an isosceles triangle ∴ CE = CB

$\Rightarrow B\hat{E}C = E\hat{B}C$

As BCE is Triangle

$B\hat{E}C + E\hat{B}C + 40 = 180$ ∴ $B\hat{E}C = E\hat{B}C$

$2B\hat{E}C + 40 = 180$

$B\hat{E}C = \frac{180-40}{2}$

$BEC = 70$

As AB is parallel to CD,

$\therefore E\hat{C}D = B\hat{E}C$ (alternate ∠s)

$\Rightarrow E\hat{C}D = 70°$

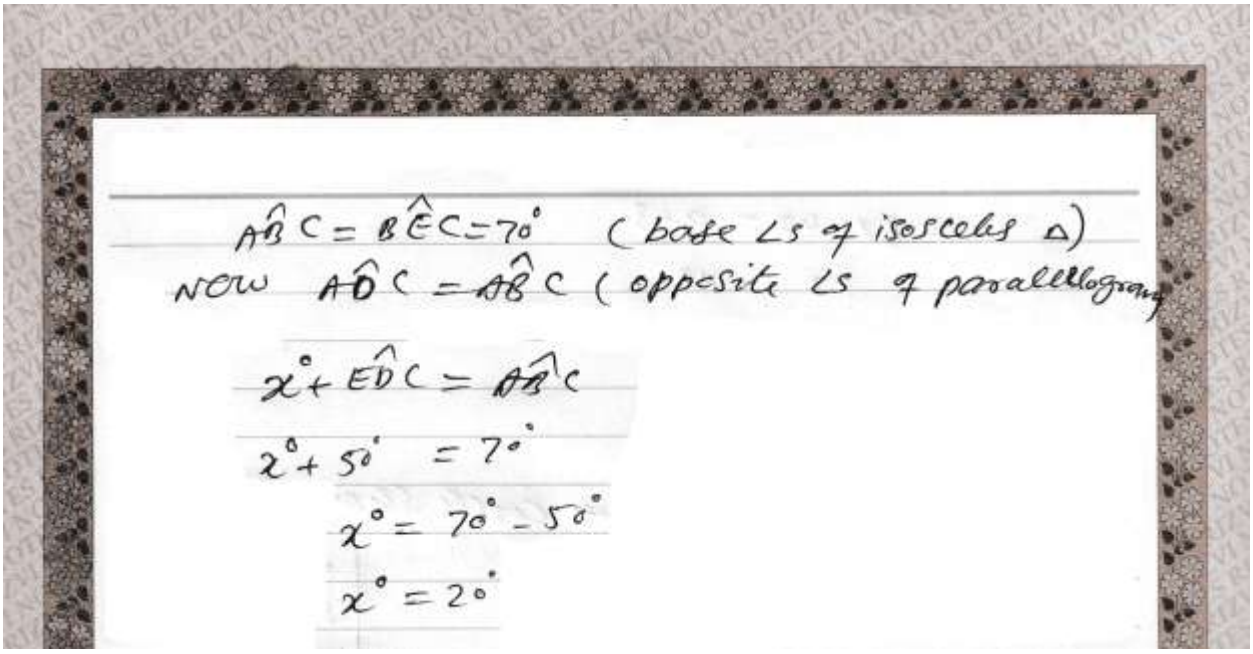
In △ DEC,

$E\hat{C}D + 60 + EDC = 180$ (∠ Sum of △ angle)

$70 + 60 + E\hat{D}C = 180$ ∴ $E\hat{C}D = 70°$

$E\hat{D}C = 180 - 70 - 60$

$E\hat{D}C = 50$



4 Petra thinks of a number.
The number is a multiple of 7.

Petra says:

> When I write my number correct to the nearest ten it is 30.

Find the number that Petra thinks of.

..... [2]

Solution: