

Numeracy Year 9 – Week 7: Algebra

STUDENT WORKSHEET

Focus of the week


Plotting and interpreting linear functions

Question 1

The graph shows a distance-time graph for a family car trip **from home**.

What was the total distance travelled by the family on their trip?

- 3.5 km
- 85 km
- 90 km
- 180 km

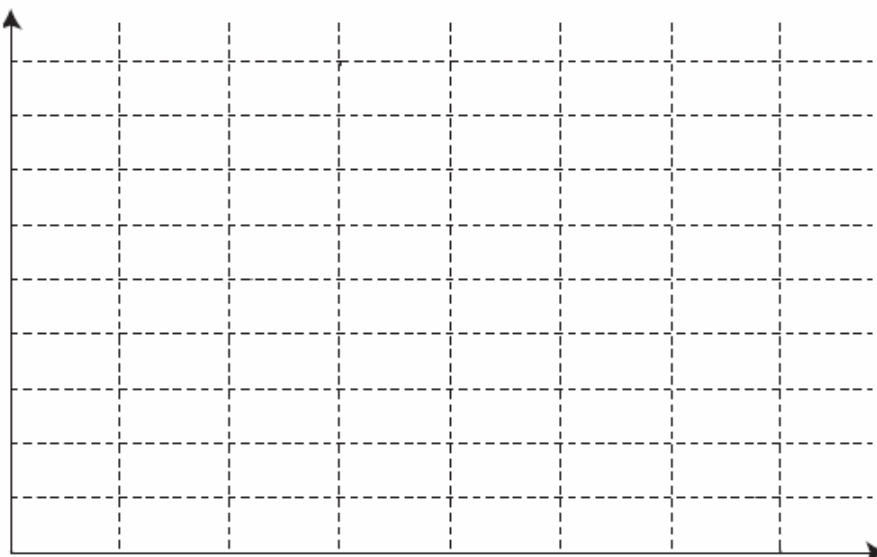


Question 2

The cost in dollars, C , to print n books is $500 + 10n$.

Choose a scale and label the axes on the grid below.

Plot the cost of printing 50, 150 and 600 books.



Draw the line graph for C (the cost of printing books).

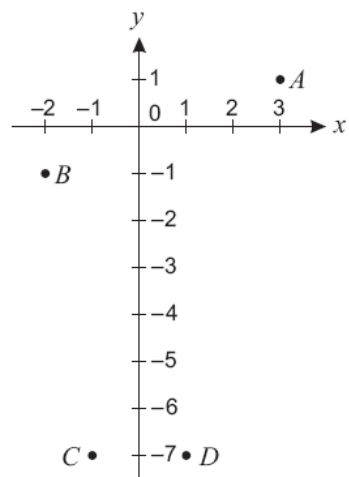
Show on your graph how you estimate the cost of printing 325 books.

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Question 3

The graph of $y = 2x - 5$ will be drawn on this grid.



Which two points will the straight line pass through?

A and B

B and C

B and D

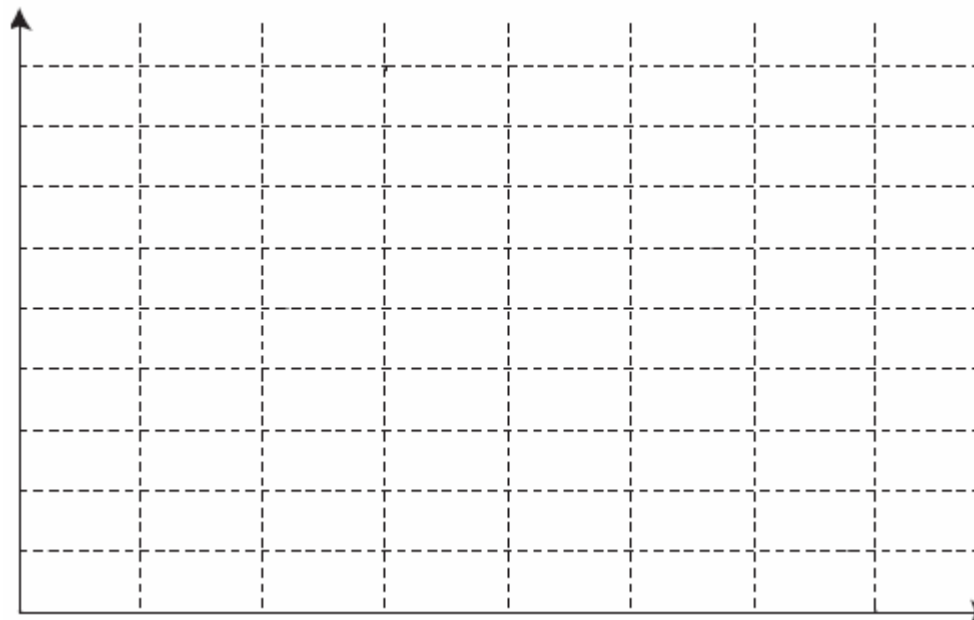
A and C

Challenge Question

The fare for a trip with *Taxicabs* is given as **\$4.00 flag fall plus \$1.50 per km.**
The fare with *Quikcabs* is given as **\$7.50 flag fall plus \$1.00 per km.**

Choose a scale and label the axes on the grid below.

Plot the cost of a 2 km, 5 km and 10 km trip with both companies.



Draw the graph for the 'cost of trip' for both companies.

The fare is \$12. Use your graphs to estimate the length of trip for both companies.

Cost for *Taxicabs* _____; Cost for *Quikcabs* _____