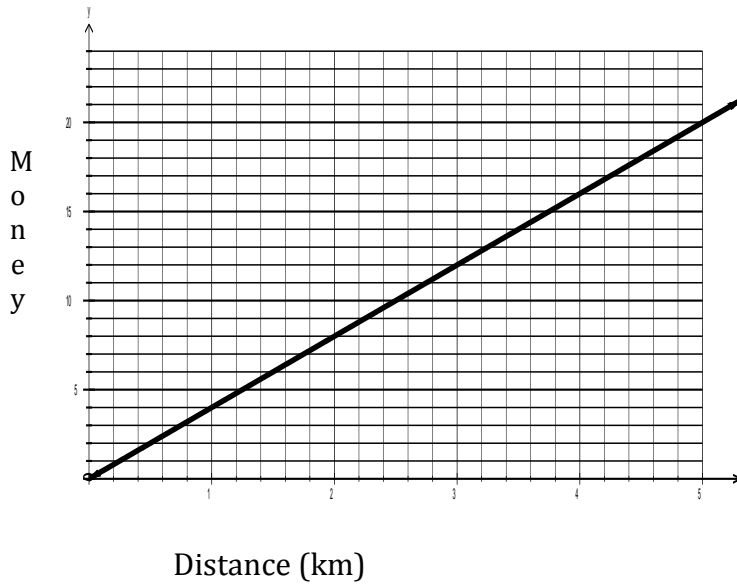


Section 4.4 Matching Equations and Graphs

Investigation: Bruce, Monica and Sari participate in a 5km walk for charity. Each student has a different plan to raise money from his/her sponsors. The following graphs show how the amount of money a sponsor owes is related to the distance walked.

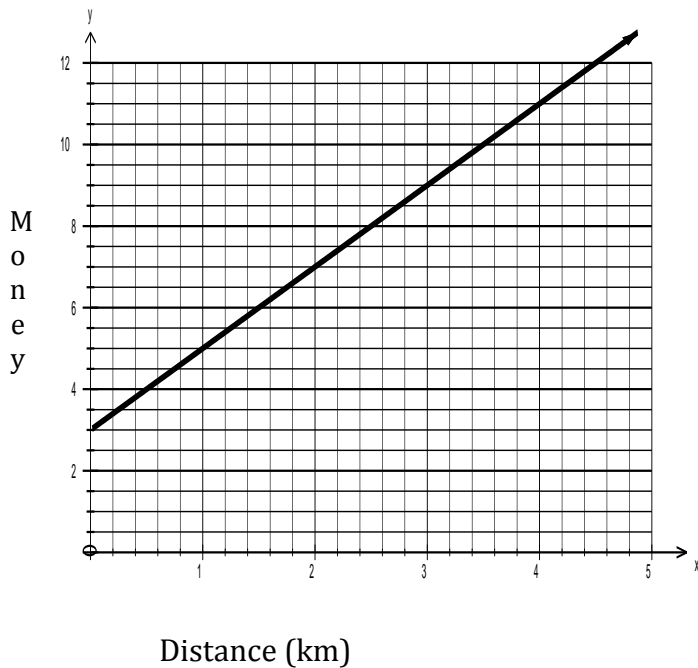
Sari



Describe how Sari is collecting money from her sponsors.

d	m

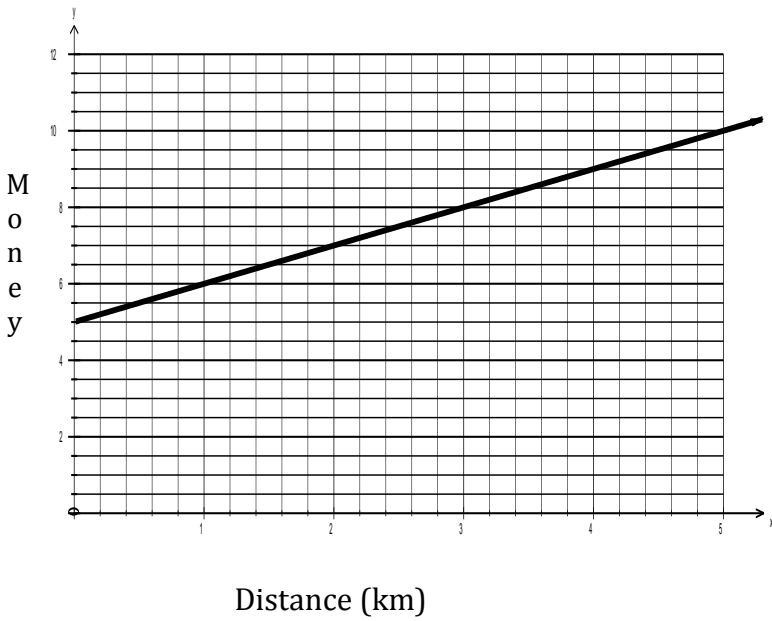
Monica



Describe how Monica is collecting money from her sponsors.

d	m

Bruce



Describe how Bruce is collecting money from his sponsors.

d	m

Match each graph with its equation:

$M = 2d + 3$ _____

$M = 4d$ _____

$M = d + 5$ _____

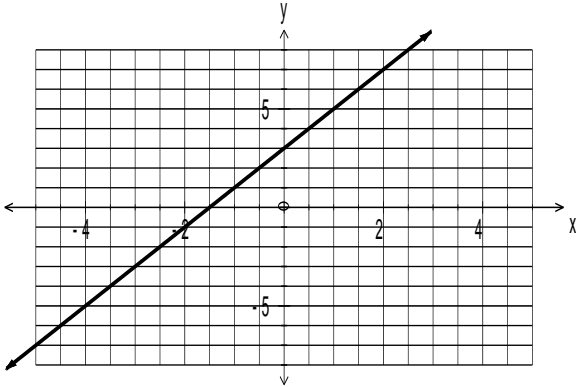
Explain how you know.

Matching Equations with Graphs

The 3 graphs below have the equations $y = 2x - 3$, $y = -2x$, and $y = 2x + 3$, but the graphs are not in the correct order.

To match each equation with its graph, use the equation to determine the coordinates of 3 points. Then find which graph passes through those points.

Graph A



Equation # 1 **$y = 2x - 3$**

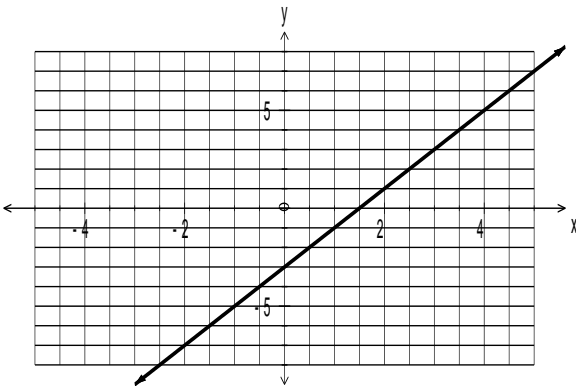
Substitute $x = -2$

Substitute $x = 0$

Substitute $x = 2$

Which Graph has these 3 points?

Graph B



Equation # 2 **$y = -2x$**

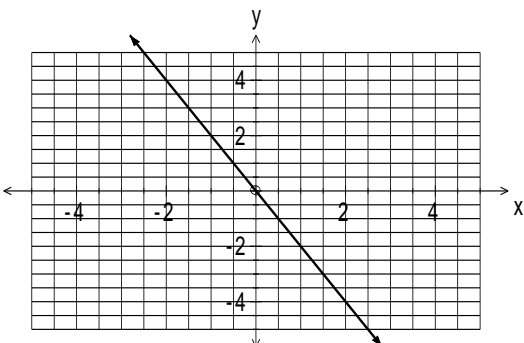
Substitute $x = -2$

Substitute $x = 0$

Substitute $x = 2$

Which Graph has these 3 points?

Graph C



Equation # 3 **$y = 2x + 3$**

Substitute $x = -2$

Substitute $x = 0$

Substitute $x = 2$

Which Graph has these 3 points?