LAST NIGHT'S HOMEWORK

Any questions?

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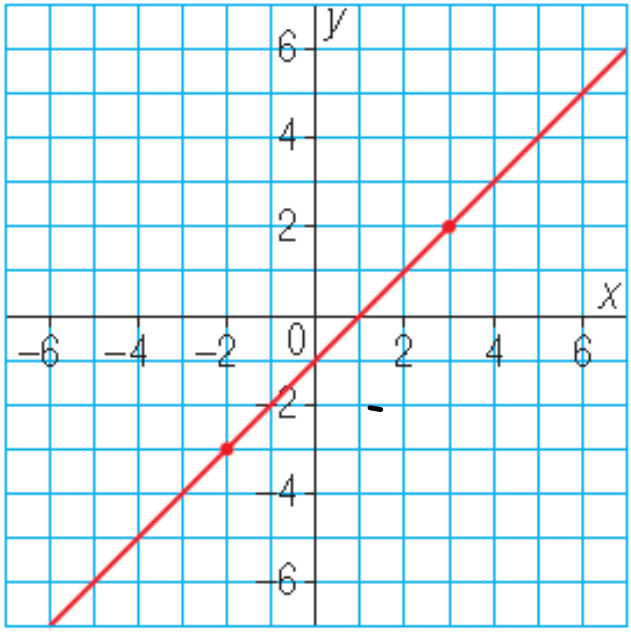
4. This graph represents a linear relation.



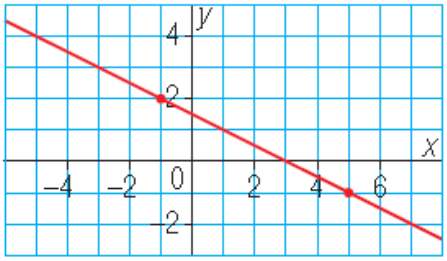
a) Determine each value of x for:

i) $y = 5$ ii) $y = -1$ iii) $y = -2$

b) Determine each value of y for:

i) $x = -4$ ii) $x = 2$ iii) $x = 5$

5. This graph represents a linear relation.



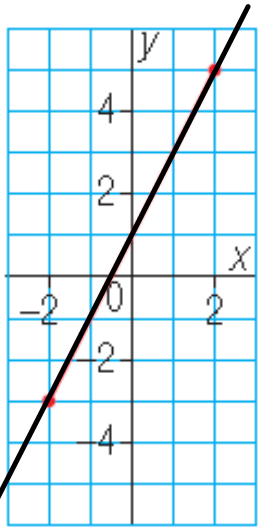
a) Determine each value of x for:

i) $y = 3$ ii) $y = 1$ iii) $y = -2$

b) Determine each value of y for:

i) $x = -3$ ii) $x = 3$ iii) $x = 6$

7. This graph represents a linear relation.



a) Determine each value of x for:

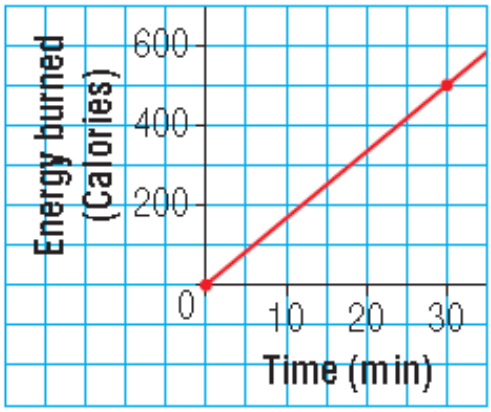
i) $y = 6$ ii) $y = -4$ iii) $y = -7$

b) Determine each value of y for:

i) $x = -5$ ii) $x = 3$ iii) $x = 5$

9. This graph shows the energy in Calories th Kendall burns when he works out on an elliptical machine.

Energy Burned on an Elliptical Machine



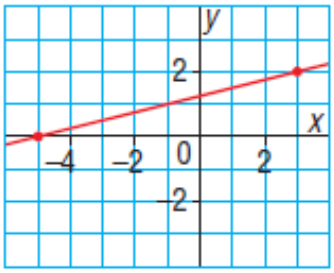
Use the graph.

a) Estimate how many Calories Kendall burns in 20 min.

b) Estimate for how long Kendall must exercise to burn 400 Calories.

c) Estimate how many Calories Kendall burns in 6 min.

10. This graph represents a linear relation.

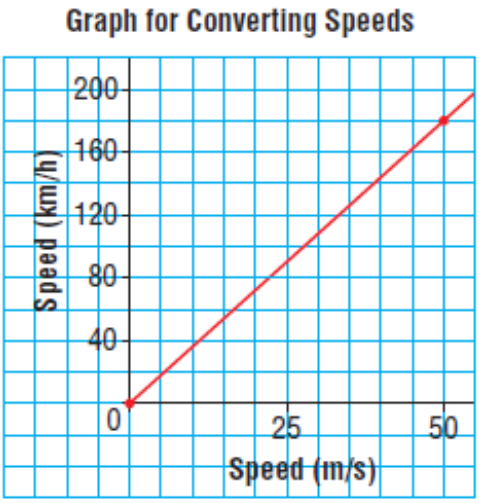


Estimate the value of y when:

a) $x = -3$ **b)** $x = 0$ **c)** $x = 1$

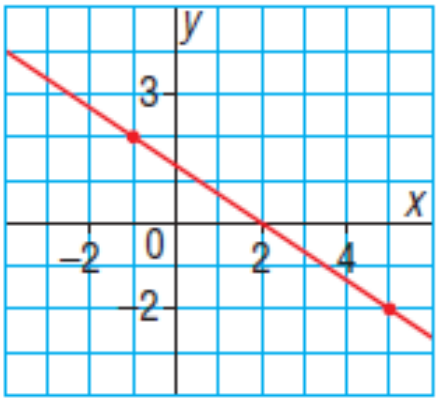
Explain how you estimated.

11. Assessment Focus This graph shows how a speed in metres per second relates to a speed in kilometres per hour.



a) Estimate the speed, in metres per second, of:
   i) a car that is travelling at 70 km/h
   ii) a train that is travelling at 110 km/h
b) Estimate the speed, in kilometres per hour, of:
   i) a racing car that is travelling at 60 m/s
   ii) a bicycle that is travelling at 8 m/s
c) For which of parts a and b did you use:
   i) interpolation?
   ii) extrapolation?
   Explain how you know.
d) Explain why your answers are estimates and not exact.

12. This graph represents a linear relation.



Estimate the value of x when:

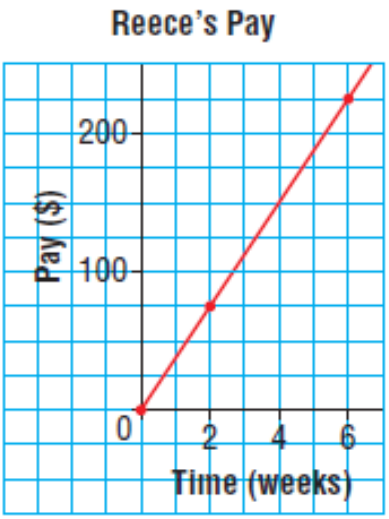
i) $y = 3$

ii) $y = 1$

iii) $y = -1$

Explain how you estimated.

13. Reece works for 5 h each week at a clothing store. This graph shows how her pay relates to the number of weeks she works.

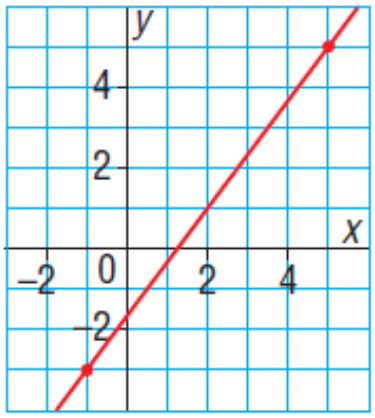


a) Estimate Reece's earnings after 8 weeks.

b) Estimate how long it will take Reece to earn $400. What assumption did you make?

c) What conditions could change that would make this graph no longer valid?

14. This graph represents a linear relation.



a) Estimate the value of y when:
i) $x = -3$ ii) $x = -5$ iii) $x = 10$

b) Estimate the value of x when:
i) $y = -5$ ii) $y = 8$ iii) $y = 10$

15. A local convenience store sells 3 different sizes of drinks. The price of each drink is listed below. The store owner plans to introduce 2 new sizes of drinks. She wants the prices and sizes to be related to the drinks she sells already.

Size (mL)	Price (¢)
500	79
750	89
1000	99

a) Graph the data.
b) What should the store owner charge for a 1400-mL drink?
c) What should be the size of a drink that costs 65¢?