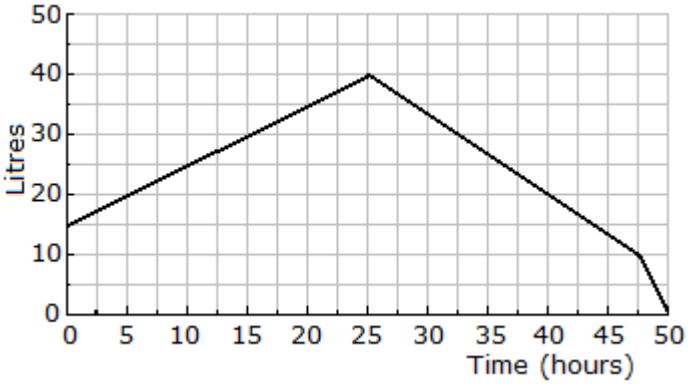
Routine Patterns and Graphs Practice #2

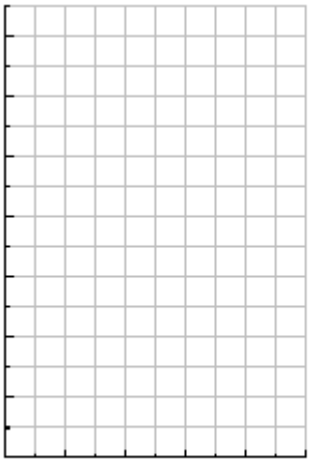


1. The graph to the left shows the water level in a tank over a period of time.

   a) How much was in the tank at the start?

   b) What was the rate at which it filled?

   c) What visual feature shows that the tank emptied faster than it filled?



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2. Another tank starts with 20 Litres and adds 10 Litres every hour. Complete the table below and graph it.

Hour	0	1	2	3	4
Litres					

   a) Write an equation for the amount this tank contains.

   b) Show visually how much will it contain after 10 hours.

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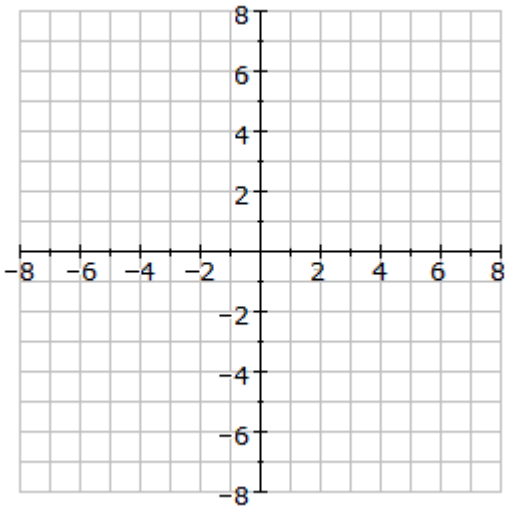
3. Draw the lines on the grid below:

   a) $y = -2x$

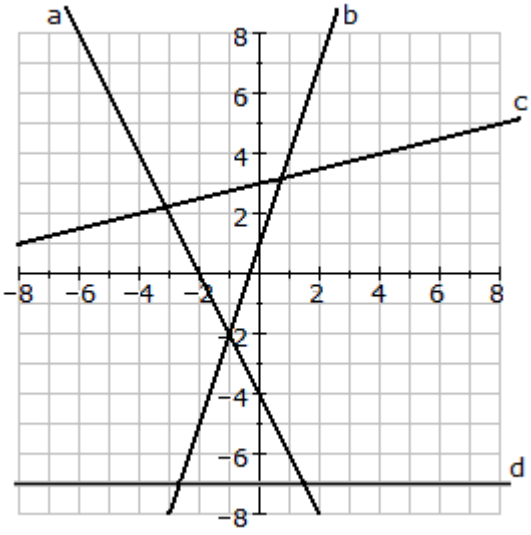
   b) $y = \frac{1}{2}x + 3$

   c) $x = 8$

   d) $y = 2x - 8$



4. Write the equations for these lines:



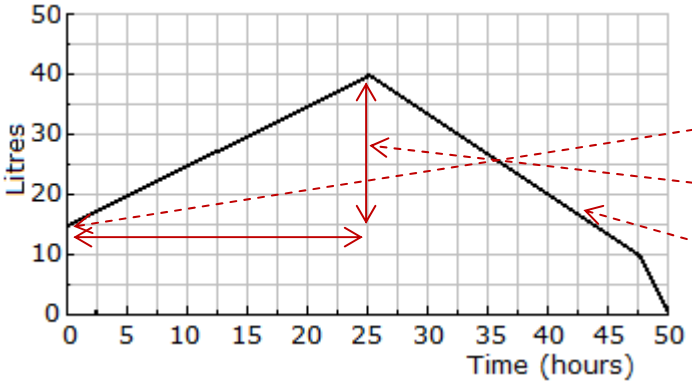
   a) .....

   b) .....

   c) .....

   d) .....

Answers: Routine Patterns and Graphs Practice #2



1. The graph to the left shows the water level in a tank over a period of time.

a) **15 L** was in the tank at the start

b) Filled at 25 ÷ 25 = **1 L per hour**

c) The **slope** of the emptying is **greater** which shows a faster rate.

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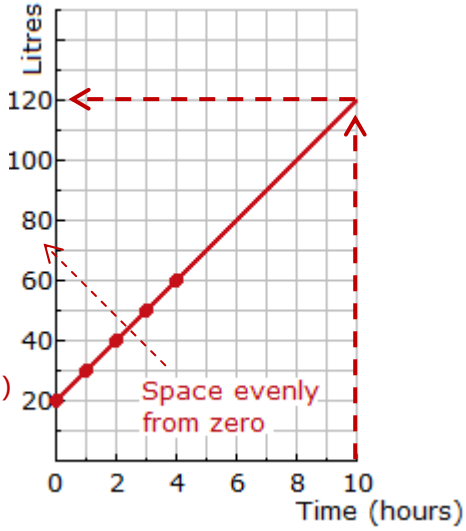
2. Another tank starts with 20 Litres and adds 10 Litres every hour. Complete the table below and graph it.

Hour	0	1	2	3	4
Litres	**20**	**30**	**40**	**50**	**60**



a) Equation: **Litres = 10 × Hours + 20** (L = 10H + 20)

b) After 10 hours it will have **120 L** (see dotted lines)

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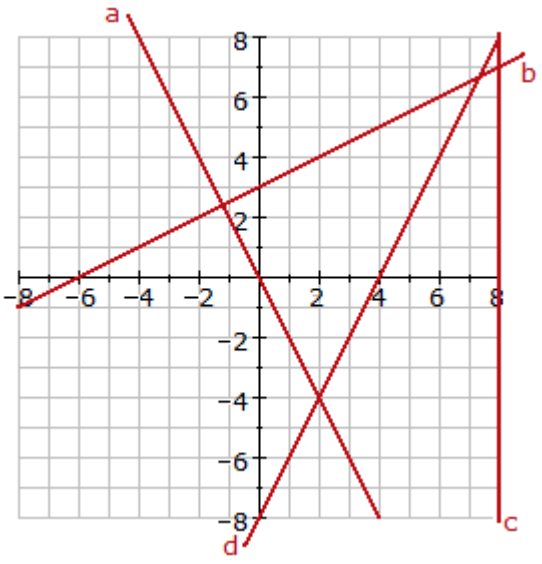
3. Draw the lines on the grid below:

a) $y = -2x$

b) $y = \frac{1}{2}x + 3$

c) $x = 8$

d) $y = 2x - 8$



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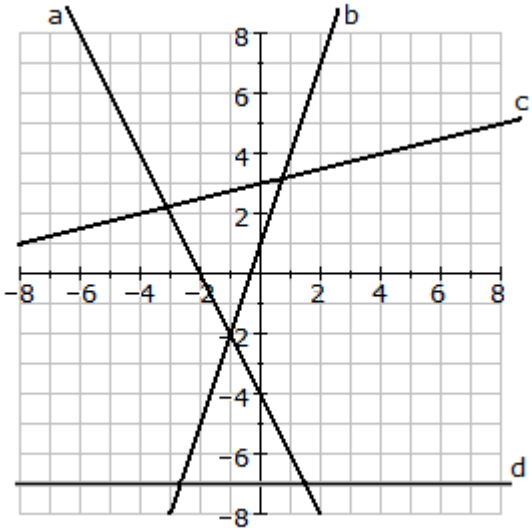

a) $y = -2x - 4$

b) $y = 3x + 1$

c) $y = \frac{1}{4}x + 3$

d) $y = -7$