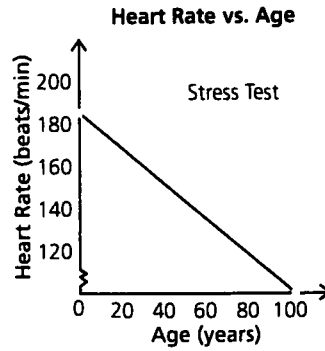


- 8 The cost of a 30-cm pizza depends on the number of toppings. Each topping costs \$0.75. A pizza with three toppings costs \$9.
- Write an equation for the cost of the pizza in the form  $y = mx + b$ .
  - Find the cost of a pizza with no toppings.
  - Find the cost of a pizza with five toppings.

- 9 A stress test is a method of evaluating the health of a patient's cardiovascular system. A technician monitors the patient's pulse while he or she rides an exercise bike or runs on a treadmill. If the patient's pulse rate exceeds a safe maximum rate, the patient is at risk of a heart attack. The maximum rate is based on the patient's age as shown in this graph.



- What does the  $y$ -intercept represent in this situation?
- What does the slope of the graph represent?
- Write an equation for the line.
- Use the equation to find the maximum heart rate in a stress test for a 58-year-old patient.

- 10 For each situation, write an equation of the line in the form  $y = mx + b$ .
- The slope is 3 and the  $y$ -intercept is 6.

- 11 The price of a litre of milk increased from \$1.25 in 2004 to \$1.35 in 2006. What is the average price increase per year?

- 12 a) Confirm that this relation is linear.

$x$	$y$
0	-4
1	1
2	6
3	11
4	16

- Calculate the slope.
- Write an equation for the relation.
- Graph the relation.