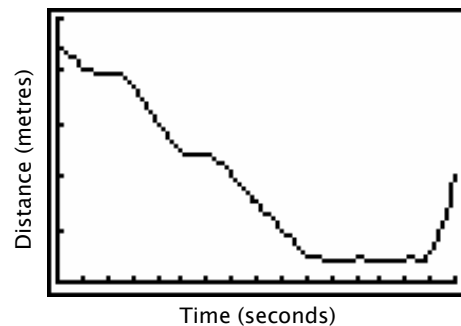


Unit 5 Test

Name: _____

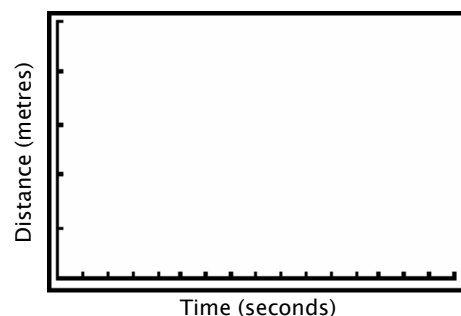
Date: _____

- (2) 1. The graph describes Rami's walk with a motion detector. Tell the story that describes this graph. Use distance away from the wall and times in your story.

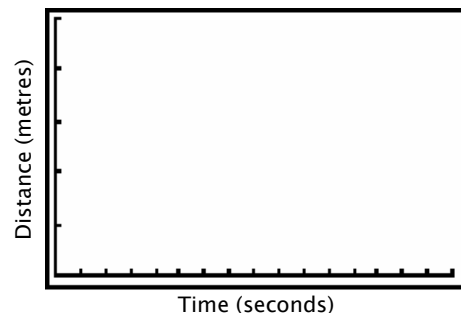


2. A story is described in each question. Sketch the graph that describes the story in the screen provided.

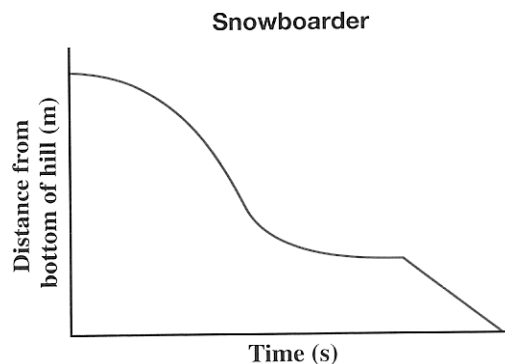
- (2) a) Begin 5 metres from the wall.
Walk towards the wall for 5 seconds.
Stop for 5 seconds.
Run back to your starting position.
Stop.



- (2) b) Begin at the wall.
Walk very slowly away from the wall for 3 seconds.
Increase your speed for 3 seconds.
Stop for 3 seconds.
Walk very slowly towards the wall for 3 seconds.
Run back to the wall.
Stop.

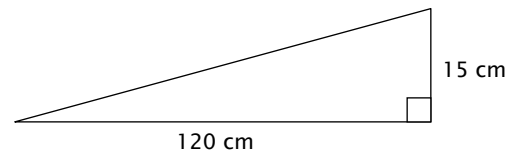
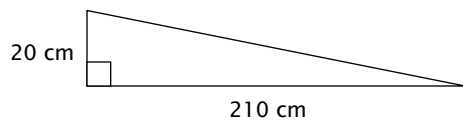


- (2) 3. Jen tried her new snowboard at the One Plank Only Resort. The graph shows her first run. Tell the story that describes Jen's first run.

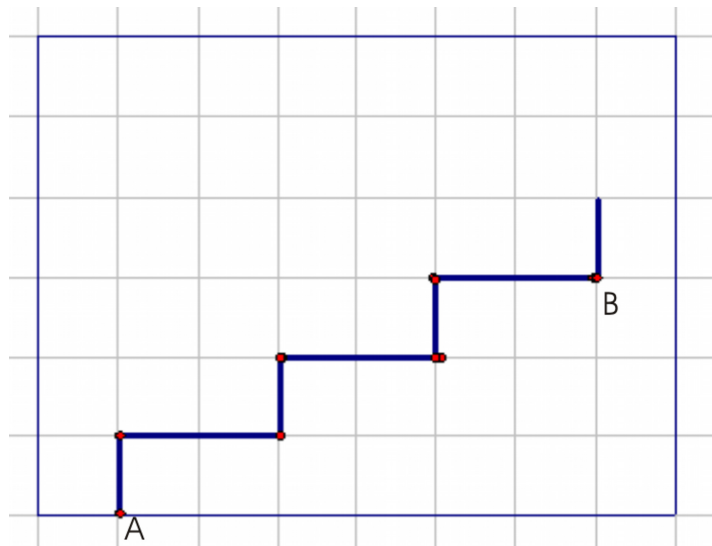


Unit 5 Test

- (4) 4. If a wheelchair ramp has a rate of change greater than 0.1 in size, then it is considered unsafe. Determine whether or not each of the following ramps is safe. Show your work and explain your reasoning.



- (2) 5. Calculate the rate of change of the staircase from A to B.



Unit 5 Test

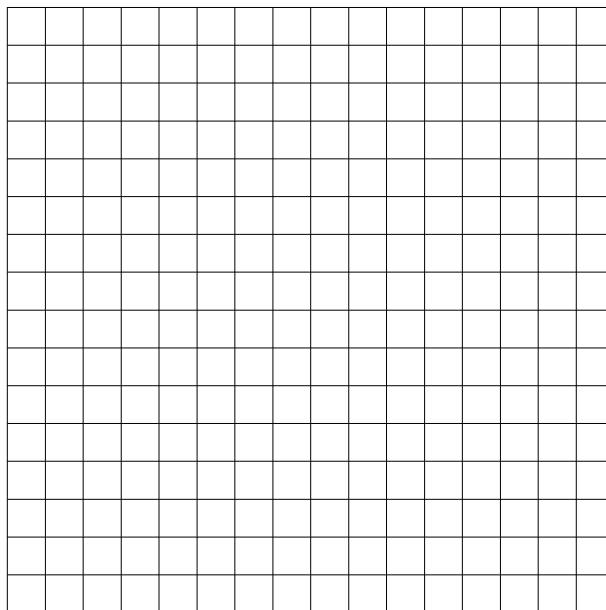
6. Arcadia charges players a \$15 admission fee to their gaming centre. Arcadia also charges each player \$5 per game.

(2) a) Write an equation to model the cost of playing games at Arcadia.

(2) b) What is the rate of change for this relation and how does it relate to the cost of playing games at Arcadia?

(2) c) What is the initial value for this relation and how does it relate to the cost of playing games at Arcadia?

(4) d) Graph the relation.



(1) e) How many games can Jeremy play if he has saved \$60 for a day at Arcadia?

(1) f) How much will it cost Renay to spend a day at Arcadia if she plays 30 games?

(2) g) How would the graph from a) change if Arcadia decreases the admission fee to \$10? Write an equation that represents the new cost of a day spent gaming at Arcadia.

Unit 5 Test

(2) h) How would the graph from a) change if Arcadia charges an admission of \$10 and increases the cost per game to \$7? Write an equation that represents the new cost of a day spent gaming at Arcadia.

7. The local swimming pool is open 5 days a week for 8 weeks during the summer holidays. The admission prices are displayed at the entrance.

Splash World Swim Park
Price List

Season's pass \$60 plus \$2 per day

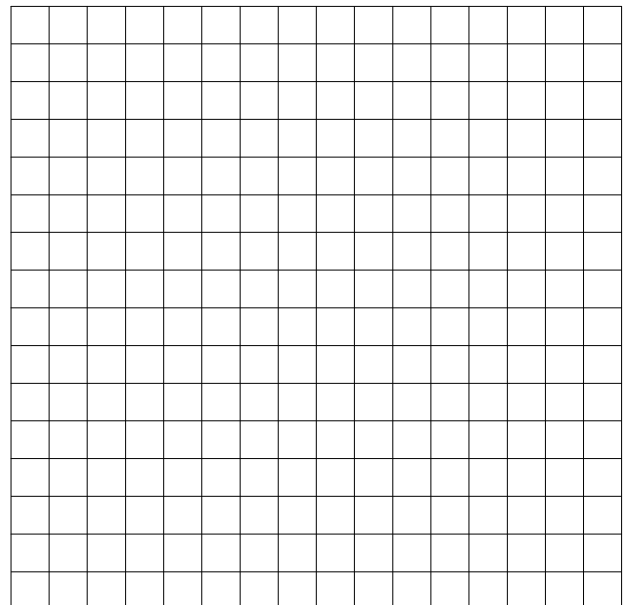
Daily swim pass \$5

(2) a) How much will it cost one person to go to the pool every day the pool is open?
i) with a season's pass?

ii) with a daily pass?

(2) b) Write an equation that represents the cost of a season's pass, and an equation that represents the cost of a daily pass.

(4) c) Graph both relations on the same grid.



(2) d) Which pass is better?
Explain your reasoning.