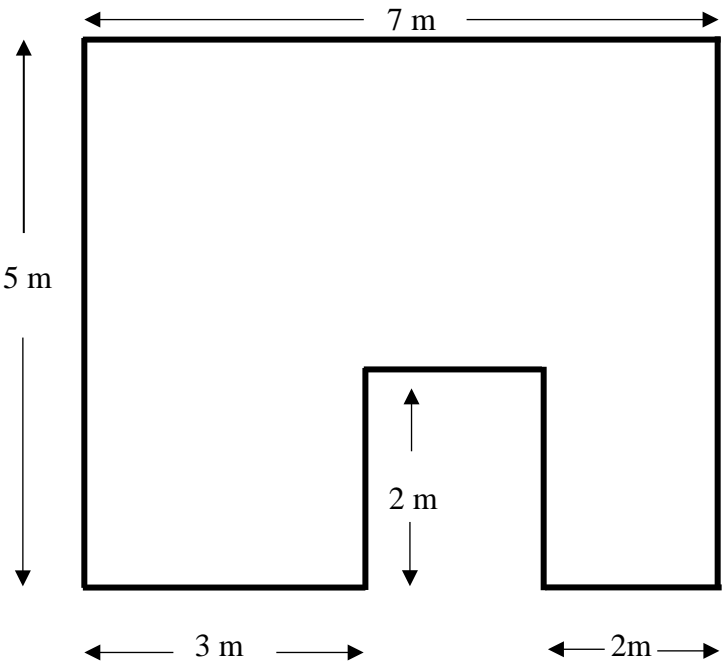


7. Examine the diagram of the family room below.



a) Find the area of the family room. Write the equation and **show your work.** (3 marks)

The Area is= _____

b) Find the perimeter of the family room. Write the equation and **show your work.** (3 marks)

Total Perimeter is = _____

c) The perimeter of the family room is have an electrical outlet every 2.0 m. What would the total cost be if the outlets be if they cost \$2.49 each? (2 marks)

Total Cost is= _____

December 2015

Ursula Franklin Academy
Admissions Assessment
Problem Solving ~ Numeracy

Total /25

Student's Name: _____
Please Print

- Instructions:**
- Use the spaces on this paper for rough work.
 - Multiple choice questions are worth 1 point each.
 - You may use pen or pencil.
 - Be sure to show all calculations, where applicable.

Multiple Choice: Record the correct letter (a, b, c, d, or e) in the space provided.

1. If there are 7 yellow marbles in a bag of 25 marbles, what percentage of marbles are not yellow?

- | | |
|--------|--------|
| a. 21% | d. 72% |
| b. 28% | e. 27% |
| c. 85% | |

Answer: _____

2. Evaluate: $3 \times 7 - (3.4 - 0.6) \div 0.7 + 4 \times 6$

- | | |
|-------|-------|
| a. 78 | d. 33 |
| b. 14 | e. 41 |
| c. 45 | |

Answer: _____

3. At a local farmer's market Havarti cheese is on sale for \$16.50 per kilogram. How much would it cost to buy 1.78 kg?

- | | |
|-------------|-------------|
| a. \$29.37 | d. \$9.27 |
| b. \$ 9.26 | e. \$297.00 |
| c. \$ 29.70 | |

Answer: _____

4. Ahmed runs 0.6 km to the gym every morning. He runs around the 4 km running track x times, then runs 0.3 km to school. The algebraic expression for the distance Ahmed runs is:

- | | |
|---------------|---------------|
| a. $0.9 - 4x$ | d. $2x + 1.8$ |
| b. $4x - 0.9$ | e. $2x - 1.8$ |
| c. $4x + 0.9$ | |

Answer: _____

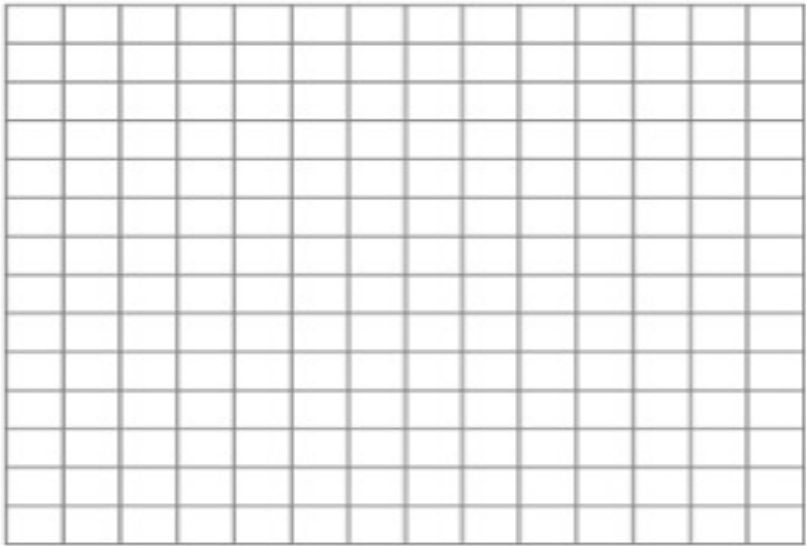
5. Dr. Gallagher, an anthropologist studying communication trends, noted the amount of mail sent during various decades.

Table 1: Average pieces of Canadian mail sent per person

Year	Pieces of Mail
1800	10
1840	10
1910	60
1960	90

- a. Use a graph to illustrate the data found in Table 1. (4 marks)

Title: _____



- b. What is the trend that the graph shows? (1 mark)
- c. Predict what you think happens to the trend for pieces of mail. Will it increase or decrease? (1 mark) Explain your answer. (1 mark)

6. a. A stovetop burner is accidentally left on in a restaurant kitchen that held a pot filled with clear liquid. At the time of the discovery, no liquid remains, only a hard white layer on the bottom of the pot.

Was the original liquid a solution or mechanical mixture? Why? (2 marks)

- b. The chef returns and realizes that she had inadvertently boiled off the water, leaving only salt. She lets the pot cool, then adds cold water. She notices that the salt at the bottom doesn't immediately mix into the water completely, even after stirring. What could she do to speed things up? Why does this work? (2 marks)
- c. Why is it always a good idea to use cold water, and not hot water, out of a tap, for cooking purposes even though using hot water would be faster? (2 marks)