

**Menihek High School**  
**Mathematics 1202**  
**Midterm Review #1**

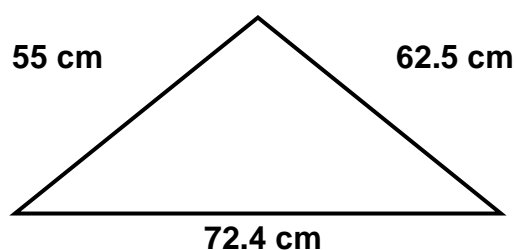
Name: \_\_\_\_\_

**Part I: Selected Response**

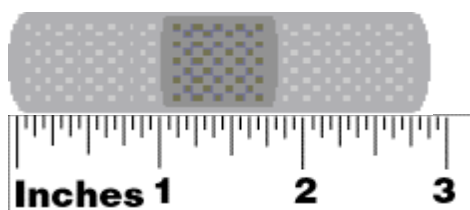
Circle the letter of the best possible answer.

1. Which has the **lowest** unit cost?  
  
A) 2L of milk at \$3.80  
B) 1.5 liters of milk at \$2.70  
C) 500 ml of milk at \$0.98  
D) 350 ml of milk at \$0.66
  
2. Last winter, the cost of strawberries was \$3.15/lb. This winter, the cost is \$2.50/lb. What was the percent decrease?
  
3. The average March temperature in the city of Regina is  $-3$  degrees Celsius. What is the equivalent temperature in degrees Fahrenheit?
  
4. You have been asked to ship a package that weighs 41 kilograms. However, the freight company wants to know the weight in pounds. What is the closest approximation of the package's weight in pounds?
  
5. A drawer is 11 inches wide. Estimate this width in centimetres.
  
6. How many British gallons are equivalent to 24 US gallons?
  
7. A 3 kg bag of sugar costs \$6.00. A 500 g box of sugar cubes costs \$2.50. A restaurant owner is considering which packaging he should buy for customers to use in their tea and coffee.  
Which of the following statements are true?  
I. The unit price of bagged sugar is \$2.00/kg, and the unit price of sugar cubes is 5.00/kg.  
  
II. Boxed sugar cubes are less messy to serve to diners than sugar from a large bag.  
  
III. In order to get 3 kg of sugar cubes, the owner would need to spend \$15.00.

8. The cost of 8 hot dog buns is \$2.49 and the cost of 10 tofu wieners is \$2.98. Determine the unit price per serving (1 bun + 1 wiener).
9. Hairstyling scissors originally priced at \$95.99 are increased to \$119.99. Calculate the percent **increase** in price.
10. In 2008, Sasha was travelling from Aberdeen, Scotland, to Toronto, Canada. She changed her 675.95 British pounds (GBP) to Canadian dollars (CAD) upon her arrival. How many Canadian dollars did she receive? (1 GBP = 2.20 CAD)
11. Which SI unit is most appropriate for measuring the distance from Wabush to Labrador City?
  - A) Centimetres
  - B) Kilometres
  - C) Metres
  - D) Millimetres
12. Convert 29 miles to the nearest kilometre.
13. The length of a fireplace mantle is 6' 9". Express this length in metres. (Hint: Change to inches first, then cm, then metres).
14. On a road map of British Columbia, the distance between Vancouver and Fort St. John is 1237 km. What is this distance to the nearest mile?
15. Find the **perimeter** of the figure.



16. Abigail is 62 inches tall. What is Abigail's height in feet and inches?
17. How long is this bandage to the nearest inch?



18. Which of the following would you most likely use centimeters to measure?

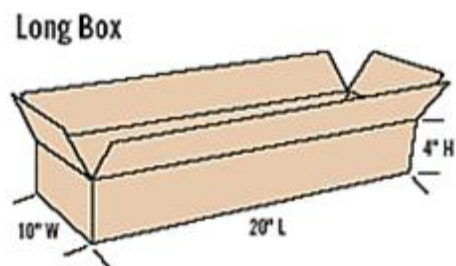
- A) distance an airplane travels
- B) height of a doorway
- C) length of a piece of notebook paper
- D) width of a dime

19. A picture measures 42 cm across. What is this measurement to the nearest inch?

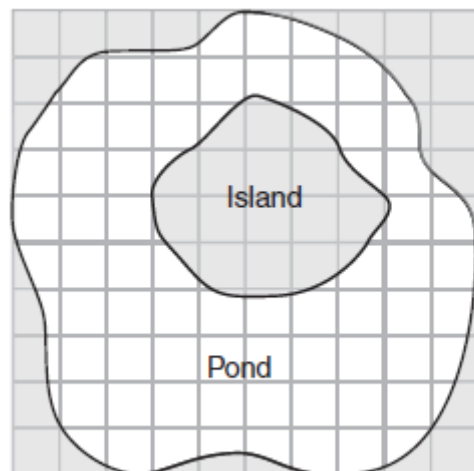
20. Tanner's sprinkler spreads water in a circular pattern. When he fully opens the faucet, the circle has a **radius** of 22 ft. If Tanner walks around the edge of the circle, how far does he walk? Use 3.14 for  $\pi$ .

21. A circle has a circumference of 112.6 m. What is the **diameter** of the circle? Use 3.14 for  $\pi$ .

22. What is the **girth** of the following package?



23. Each square on the grid below represents one square metre. What is the approximate area of the surface of the pond?

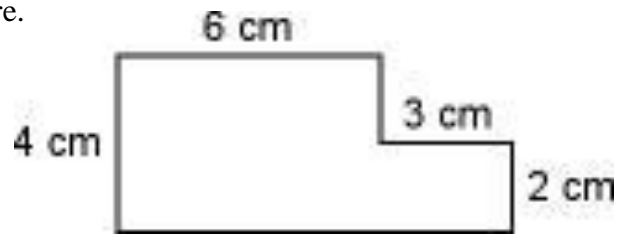


24. A rectangular tabletop is 3 **feet** long and 28 **inches** wide. Which is the area of the tabletop?

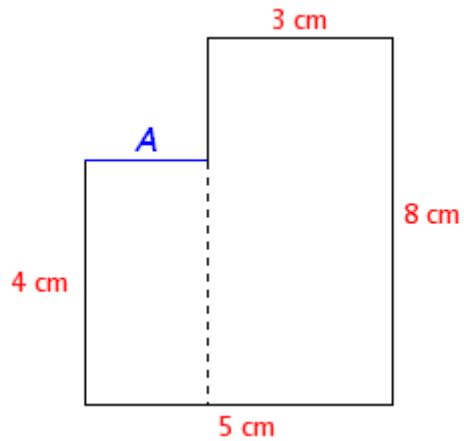
25. The radius of a circle is 13.6 meters. What is the approximate area?

26. The area of a picture is  $1456 \text{ mm}^2$ . Express this area in  $\text{cm}^2$ .

27. Calculate the **area** of the following figure.



28. Calculate the **perimeter** of the following figure.



29. The area of a square is  $58.6 \text{ m}^2$ . Which is the length of each side?
30. A walk-in closet is 4 m wide and 5 m long. The owner wants to enlarge this room to turn it into an office. What changes should he make to exactly double the area of the closet?

**Part II: Constructed Response**

Answer the following questions in the spaces provided.

**Be sure to show ALL workings and formula as full marks will not be given for answers only.**

- Eden is an interior designer. She is selecting fabric for curtains for her client's dining room. Cotton fabric costs \$86.00 for 8.5 yards and velvet fabric costs \$29.50 for 3 yards.
  - What is the **unit price** of each fabric?
  - Which fabric has the **lower** unit price?
  - What other factors might Eden consider when choosing which fabric to buy?
- Brittany sells many products at her bulk store. She put a variety of different drinks in large barrels so that customers can fill their own bottles. A certain drink sells for \$326.50 for 160 L.
  - Determine the price **per litre**.
  - Determine the price per 500 **mL**.

3. Cindy sells apples for 89¢ a **pound**. A local competitor advertises bananas for \$2.19 per **kilogram**. Does Cindy have a better price? Show all workings.

4. Joe is considering a move to St. John's and is doing some research on the city. He discovers that the highest temperature recorded at 32.5.1<sup>0</sup> C was in 1933 and lowest was -42.9<sup>0</sup> F in 1893. What is the difference in degrees **Celsius**, to one decimal place?

5.

	Canadian dollar (\$)	US dollar (\$)	Euro (€)	British pound (£)	Japanese yen (¥)	Mexican peso (\$)	Chinese yuan (¥)
Canadian dollar (\$)	1.000	1.035	1.482	1.650	0.011	0.081	0.152
US dollar (\$)	0.967	1.000	1.431	1.594	0.012	0.078	0.146
Euro (€)	0.676	0.699	1.000	1.114	0.008	0.055	0.102
British pound (£)	0.607	0.627	0.898	1.000	0.007	0.049	0.092
Japanese yen (¥)	90.198	93.185	133.388	148.55	1.000	7.303	13.638
Mexican peso (\$)	12.340	12.760	18.265	20.341	0.137	1.000	1.867
Chinese yuan (¥)	6.602	6.833	9.781	10.893	0.073	0.536	1.000

Thomas is going to travel to China and takes \$870 Canadian with him.

a) How much is that worth in **Chinese Yuan**?

b) If Thomas wants to take 600 **Chinese Yuan**, how much will that cost him in Canadian dollars?

6. The front of Glenn's property is 34 **metres** wide and he would like to plant some cedar hedges for privacy. He needs to plant a tree every 4 **feet**. How many trees would he need to purchase?

7. You look in the newspaper and find an advertisement for a computer you want to buy. It is normally \$399.95, but it is on sale for \$249.89. What percent of a discount (**decrease**) are you receiving?

8. Jessica is building a pen for her dog. The perimeter of the pen will be 224 inches.

a) What will the perimeter of the enclosure be in **feet and inches**?

b) The wire mesh is sold by the foot. It costs \$1.45/ft. What will be the cost of the materials?

9. Niko wants to paint 3 walls of his bedroom. One wall measures 8 ft by 7 ft while the other wall is 12 ft by 7 ft. What is total area, **in metres**, of the two walls that Niko wants to paint?

(Hint: Either convert the dimensions and then find the area or find the area and then convert.)

10. Suzanne purchased tiles for her patio that are 9" by 5". She measured her patio in metres and wants to convert the tile dimensions to SI units.

a) What are the dimensions of the tiles in **centimetres**?

b) What is the area of the patio in  $\text{cm}^2$ ?

11. Hayden determined that the area of his porch was 226 **sq ft**. If concrete costs \$19.50 per **sq yd**, how much will cost Hayden to use concrete for his porch?

12. Determine the **area** of the following figure.

