## /30 = %

NAME:

## Chapter 1 - MEASUREMENT EXAM REVIEW

Multiple Choice (7 Points) :

Circle the choice that best completes the statement or answers the question.

- 1. Convert 3180 m to the nearest yard.
  - a. 2862 yd. b. 3478 yd. c. 3445 yd. d. 3533 yd.
- 2. A parade route is 2 miles long. If the average lawn chair is 32 inches wide, how many can fit along both sides of the parade route? (Assume there is no space in between chairs.)
  - a. 8448 b. 3960 c. 7920 d. 330
- 3. Determine the surface area of this right cone to the nearest square metre.



- 4. Which of the following best approximates 1 yd.?
  - a. The width of your shortest finger
  - b. The length of a screwdriver
  - c. The height of the kitchen counter above the floor
  - d. The length of a football field

5.A sphere has a radius of 5.3 m. What is the surface area of the sphere to the nearest square metre?

- a.  $624 \text{ m}^2$  b.  $353 \text{ m}^2$  c.  $312 \text{ m}^2$  d.  $265 \text{ m}^2$
- 6. The Queen's Plate is a thoroughbred horse race for 3-year-old Canadian-bred horses. The race is  $1\frac{1}{4}$  mi. in length. What is this distance in kilometres?
  - a. 2.01 km b. 1.70 km c. 1.28 km d. 0.78 km
- 7. A regular tetrahedron has edge length 20.0 m and a slant height of 17.3 m. Calculate the surface area of the tetrahedron to the nearest square metre.
  - a.  $173 \text{ m}^2$  b.  $519 \text{ m}^2$  c.  $692 \text{ m}^2$  d.  $1384 \text{ m}^2$

WRITTEN RESPONSE (22 points): Please show all the steps of your solution.

- 1. A right cone has a diameter of 17.1 cm and a height of 11.3 cm. Determine the volume of the cone to the nearest cubic centimetre. (1 *mark*)
- 2. Convert 12 245 ft. to miles, yards, and feet. (2 mark)
- 3. A basketball has a diameter of 30 centimeters. What is the volume of the ball to the nearest cubic centimetre? (1 *mark*)
- 4. A sphere has a diameter of 24 inches. A cone has a radius of 16 inches and a slant height of 17 inches. Which one has the largest surface area? Justify your response. (*3 marks*)

5. This cone was cut from a right rectangular prism with dimensions 19cm by 21cm by 65cm. What volume of the right rectangular prism, in cubic centimeters, remains?



6. This right cone has a volume of 615.8 cm<sup>3</sup>. What is the height of the cone to the nearest tenth of a centimeter? Justify your answer.

(2 marks)

(3 marks)



- Each layer of a two-layer wedding cake is a cylinder with height 8 cm. The bottom layer has diameter 24 cm, and the top layer has diameter 14 cm. The cake is covered in frosting. Determine the area of frosting to the nearest square centimetre. (5 marks)
- 8. A right rectangular pyramid with a height of 12 m has a base which measures 3 m by 8 m. Draw a labelled diagram of the pyramid and calculate the surface area to the nearest square metre. (6 marks)