

Review: Unit 1 Measurement

Section 1.1

- 1: Identify the most appropriate imperial unit to estimate each of the following, and state which referent you would use.
- A) The width of the classroom
 - B) The greatest width of a maple leaf.
 - C) The length of your friend's shadow.
- 2: Convert...
- A) 8 ft to inches
 - B) 235 yards to feet
 - C) 6 mi to yards
 - D) 72 in. to feet
 - E) 87 ft to yards
 - F) 288 in. to yards
 - G) 67 in. to feet and inches
 - H) 418 ft. to yards and feet
 - I) 2148 in. to yards and feet
 - J) 7ft. 5 in. to inches
 - K) 9 yd. 1 ft. to feet
- 3: Sue wants to fence part of her yard. She measures the perimeter as 44yd. What is the perimeter in feet?
- 4: A dog trainer advises that, when walking a dog on a city street, the walker should allow the dog 42in. of leash. Greg bought a retractable leash that extends $5\frac{1}{2}$ yd. Greg follows the trainer's advice. What length of the leash, in inches, is not used?
- 5: A mural is 3yd. long and 2yd. wide. It has a border that is made with sections that are 48in. long. How many sections were needed to make the border?

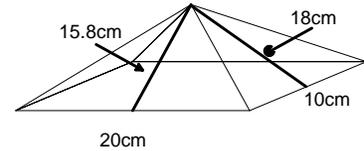
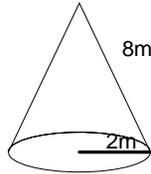
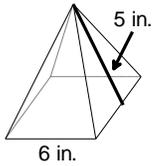
Section 1.2

- 6: Convert....
- A) 5 in. to centimetres
 - B) 8 ft. to meters
 - C) 7 mi. to kilometres
 - D) 12m to inches
 - E) 7km to miles
 - F) 86 cm to inches
- 7: Tammy drove 85km to a camp site. Todd drove 52mi. to meet Tammy at the camp site. Who drove farther? Justify your answer.

- 8: To qualify for the school volleyball try-outs, Rick needs to be able to jump and touch a line on a wall that is 8ft. 2in. off the ground. In his workouts, Rick jumped 243cm. Will he qualify for the try outs?

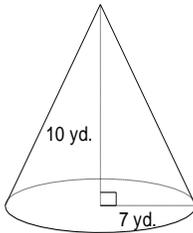
Section 1.4

- 9: Find the surface area of each object to the nearest square unit.



- 10: A triangular pyramid has 4 congruent faces. Each face has a base length of 12cm and a height of 10.4cm. Find its surface area.

- 11: Find the slant height of this cone to the nearest tenth of a unit.



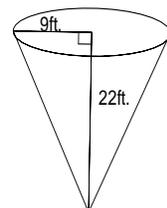
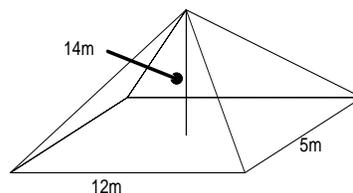
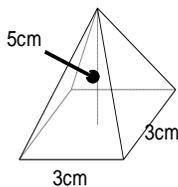
- 12: A wooden square pyramid is to be painted. The side length of the base is 8cm and the **height** of the pyramid is 6cm. To the nearest square centimetre, what is the area that will be painted?

- 13: A cone-shaped hat is to be made with radius 5in. and height 12in. To the nearest square inch, how much material will be need for the hat?

- 14: A triangular pyramid has 4 congruent faces. The surface area is 250 square inches. Find its slant height to the nearest tenth of an inch.

Section 1.5

- 15: Find the volume of each object to the nearest cubic unit.



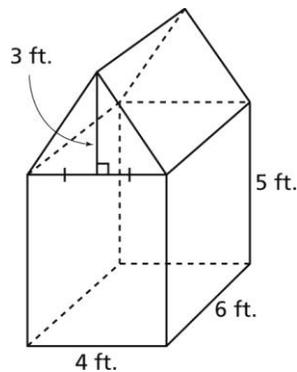
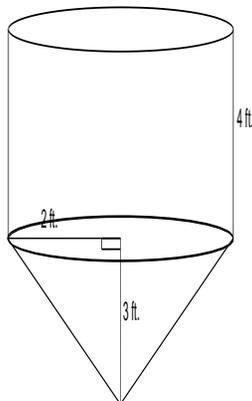
- 16: Find the volume of a square pyramid that has a base length of 8in. and a **slant height** of 12in.
- 17: Find the volume of a cone that has a **diameter** of 22in and a **slant height** of 14in.
- 18: The base of a square prism has a side length 8cm and height of 12cm. The base of a square pyramid has a side length of 12cm and height of 17cm. Which object has the greater volume?
- 19: Both a cylinder and a cone have volume 1525 cubic inches and base radius 7in. Find the height of each object to the nearest tenth of an inch.
- 20: A rectangular pyramid can hold 1250 cubic feet of water. The base of the pyramid is 15ft. by 10ft. What is the height of the pyramid?

Section 1.6

- 21: Find the surface area AND volume of each of following...
- A) Sphere with radius 2ft.
 - B) Sphere with diameter 17cm
 - C) Hemisphere with radius 11 in.
 - D) Hemisphere with diameter 5m
- 22: A ball has a surface area of 28 square inches. Find the radius of the ball, to the nearest tenth of an inch.
- 23: A disco ball is covered in 9 square feet of silver foil. To the nearest inch, what is the diameter of the ball?

Section 1.7

- 24: Find the surface area of each of the following composite objects.



- 25: A sphere of flavoured ice is served in a cylinder shaped paper cup. The cup has diameter 6cm and height 10cm. The sphere has the same diameter as the cup. To the nearest cubic centimetre, how much space is left inside the cup? (hint: one half of the sphere is below the rim of the cup.)

26: Find the volume of each of the following composite objects.

