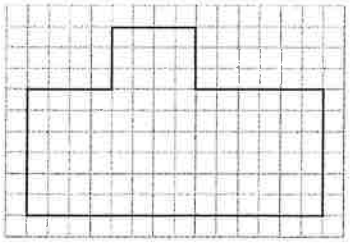
Name _____ Date _____ Class _____

MODULE 8

Modeling Geometric Figures

Module Quiz: B

Use the figure for 1–2.



1. The figure shows a scale drawing of a room, and each square stands for 1 square foot. What is the area of the room in square yards?

   A $10\frac{2}{3}$ C 96

   B 32 D 126

2. Now let the figure show a scale drawing of a park with the largest dimension equal to 63 meters. What is the scale?

   A 1 unit : 3.11 m C 1 unit : 7 m

   B 1 unit : 4.5 m D 1 unit : 10.5 m

3. Two sides of a triangle measure 25 cm and 35 cm. Which of the following could be the measure of the third side?

   A 3 cm C 8 cm

   B 6 cm D 11 cm

4. A triangle has two sides that measure 5 cm and 7 cm. Which of the following CANNOT be the measure of the third side?

   A 3 cm C 7 cm

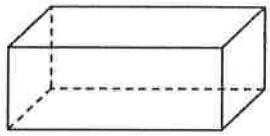
   B 5 cm D 12 cm

5. A store sells towels for 25% off the regular price. The regular price of a beach towel is $24.50. Which expression represents the sale price?

   A $0.25x$ C $1.25x$

   B $0.75x$ D $1.75x$

6. The right rectangular prism below has a square base.



The following could be the shape of a cross section of the prism EXCEPT:

A rectangle C parallelogram

B circle D square

7. Which of the following can form a cross section?

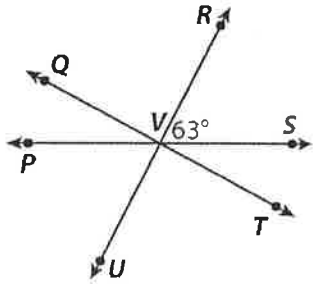
   A a point and a triangle

   B a plane and a cone

   C a circle and a square

   D a line and a point

Use the diagram for 8–9.



8. What is the measure of $\angle PVU$?

   A 15° C 63°

   B 33° D 117°

9. Which describes the relationship between $\angle QVP$ and $\angle PVU$?

   A adjacent angles

   B complementary angles

   C supplementary angles

   D vertical angles

10. Joey cut a 10.5-foot length of rope into 6 pieces of equal length. How long was each piece of rope?

    A 0.25 ft C 2.5 ft

    B 1.75 ft D 6 ft

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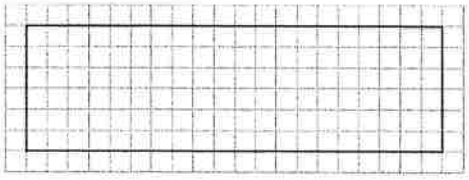
MODULE 8

Modeling Geometric Figures

11. A scale drawing for a rectangular parking lot measures 6.8 cm by 12.3 cm. The scale is 5 cm : 25 m. Find the area of the parking lot.

_____

12. The scale drawing below is the base of an office building. The scale of the drawing is 1 unit : 6 feet.



Redraw the scale drawing using a scale of 1 unit : 4 yards. Use the grid above.

13. A triangle has angles measuring 30° and 90°. The length of the included side is 6 cm. Tell whether the conditions form a unique triangle, more than one triangle, or no triangle.

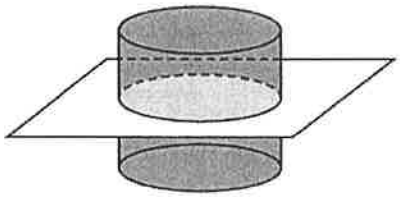
_____

14. In the space below, draw a triangle with angles 40° and 50°, and an included side length of 2 inches.

15. Patricia bought a new swimsuit that cost $35. Sales tax is 7.5%. How much did Patricia pay, including sales tax?

_____

Use the figure for 16–17.



16. Describe the cross section of the cylinder by naming its shape.

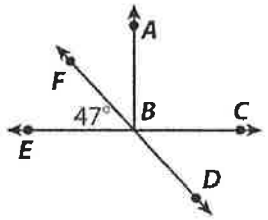
_____

17. Is it possible for the cylinder to have a cross section in the shape of a rectangle? Explain.

_____

_____

Use the diagram for 18–19.



18. What is the measure of $\angle EBD$?

_____

19. What is the relationship between $\angle ABF$ and $\angle ABD$?

_____

20. Deborah has $6\frac{1}{2}$ pounds of cherries. She wants to divide them into plastic bags with $\frac{1}{4}$ pound of cherries in each bag. Find the number of plastic bags she will need.

_____

* only Circled ones

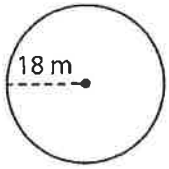
Name _____ Date _____ Class _____

MODULE 9

Circumference, Area, and Volume

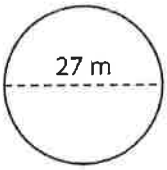
Module Quiz: B

1. What is the circumference of the circle below?



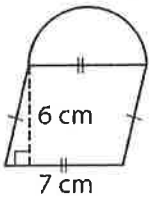
A 36 m
C 113 m
B 56.5 m
D 324 m

2. What is the area of the circle below?



A 42.4 m^2
C 572.3 m^2
B 84.8 m^2
D 729.1 m^2

3. What is the area of the figure below?

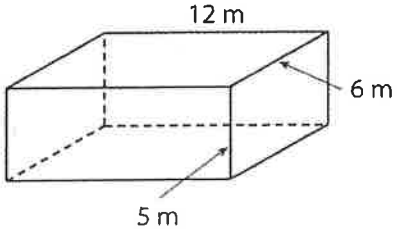


A 42 cm^2
C 80.5 cm^2
B 61.2 cm^2
D 118.9 cm^2

4. Karen bought 5.5 pounds of bananas for $0.40 per pound. How much did she pay for the bananas?

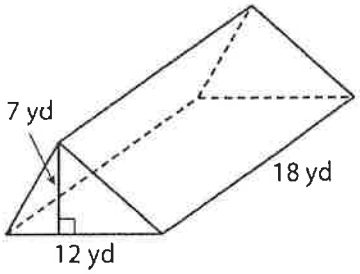
A $2.20
C $4.50
B $3.40
D $5.70

5. What is the surface area of the rectangular prism below?



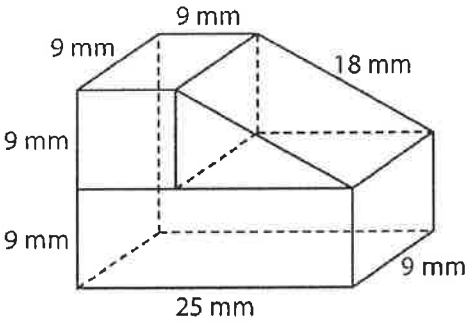
A 60 m^2
C 162 m^2
B 72 m^2
D 324 m^2

6. What is the volume of the triangular prism below?



A 42 yd^3
C 756 yd^3
B 84 yd^3
D 1,512 yd^3

Use the figure for 7–8.



7. What is the surface area of the figure above?

A 785 mm^2
C 1,692 mm^2
B 1,467 mm^2
D 1,854 mm^2

8. What is the volume of the figure above?

A 929 mm^3
C 2,025 mm^3
B 1,296 mm^3
D 3,402 mm^3

9. Henry joined an art class that charges $125 for the cost of supplies, plus $25 per class. Henry wants to spend no more than $500 on art classes. Which inequality can be solved to find the number of classes Henry can take?

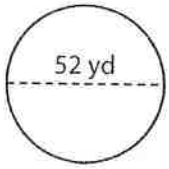
A $25x + 125 < 500$
B $125x - 25 > 500$
C $25x \geq 625$
D $125x + 25 \leq 500$

Name _____ Date _____ Class _____

MODULE 9

Circumference, Area, and Volume

10. Find the circumference of the circle below.



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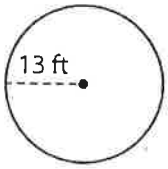
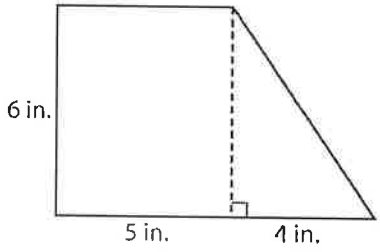
11. Find the area of the circle below.



_____

12. Find the area of the figure below.

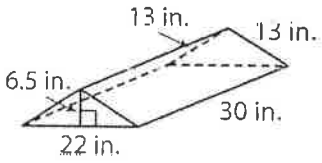


_____

13. A half cup of milk has 4 grams of protein. Find the number of grams of protein in $2\frac{1}{4}$ cups of milk.

_____

14. Find the surface area of the triangular prism below.



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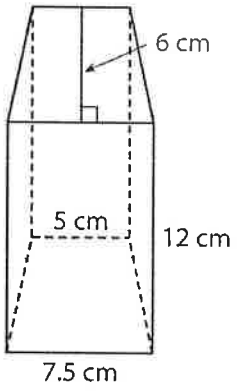
15. Find the volume of the trapezoidal prism below.



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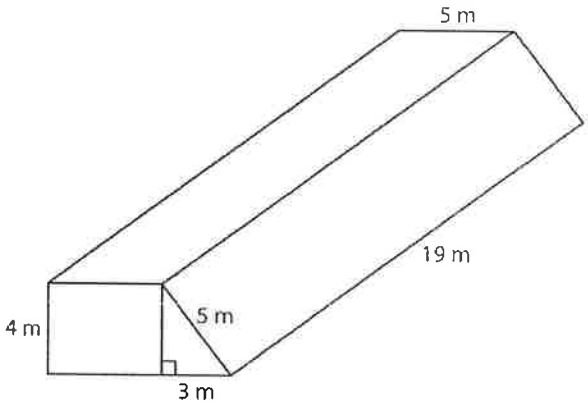
Use the figure for 16–17.



16. Find the surface area of the figure.

_____

17. Find the volume of the figure.

_____

18. Wendy borrowed a 370-page book from the library. She has already read 20 pages. The book is due back to the library in 7 days. Write an inequality to find the number of pages per day Wendy must read in order to finish the book before it is due.

_____