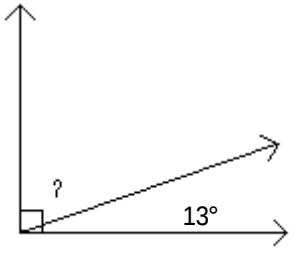
Review 1

Name_____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

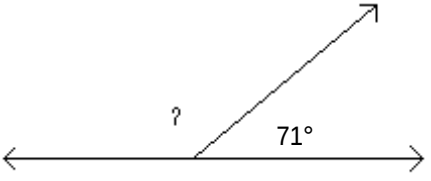
Find the measure of the angle in which ?° appears.

1) 1) _____



A) 77° B) 167° C) 132° D) 72°

2) 2) _____



A) 109° B) 161° C) 19° D) 29°

Find the measure of the complement of the angle.

3) Find the complement of 34°. 3) _____

A) 236° B) 146° C) 326° D) 56°

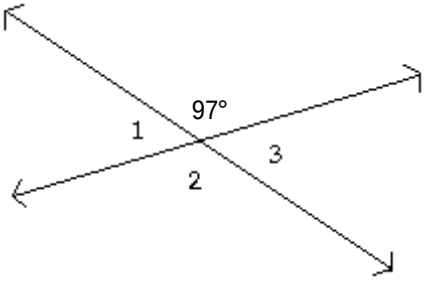
Find the measure of the supplement of the angle.

4) Find the supplement of 37°. 4) _____

A) 323° B) 143° C) 53° D) 233°

Find the measures of angles 1, 2, and 3.

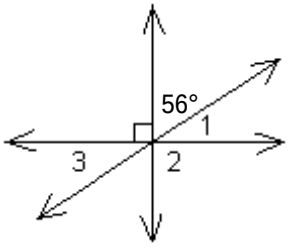
5) 5) _____



A) m∠1 = 97°, m∠2 = 7°, m∠3 = 97° B) m∠1 = 97°, m∠2 = 83°, m∠3 = 97°

C) m∠1 = 83°, m∠2 = 97°, m∠3 = 83° D) m∠1 = 7°, m∠2 = 97°, m∠3 = 7°

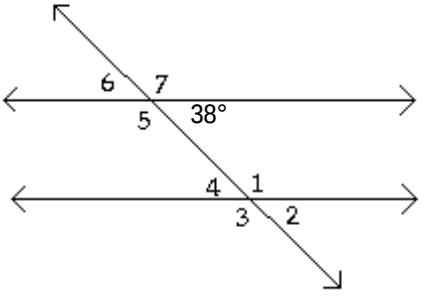
6) 6) _____



A) ∠1 = 124°; ∠2 = 56°; ∠3 = 124°
B) ∠1 = 34°; ∠2 = 90°; ∠3 = 34°
C) ∠1 = 34°; ∠2 = 112°; ∠3 = 34°
D) ∠1 = 34°; ∠2 = 90°; ∠3 = 56°

The figure shows two parallel lines intersected by a transversal. One of the angle measures is given. Find the measure of the indicated angle.

7) 7) _____

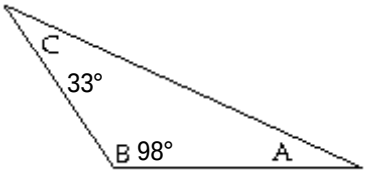


Find the measure of ∠6.

A) 52° B) 128° C) 38° D) 28°

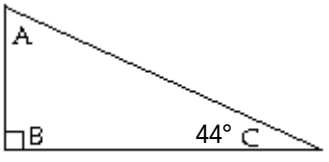
Find the measure of angle A for the triangle shown.

8) 8) _____



A) 57° B) 229° C) 49° D) 8°

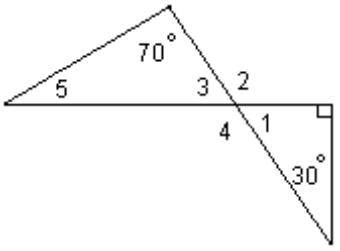
9) 9) _____



A) 136° B) 56° C) 46° D) 90°

Find the measure of the angle.

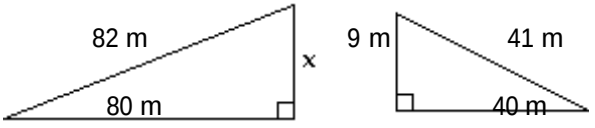
10) Find the measure of angle 5 in the figure shown. 10) _____



A) 50° B) 40° C) 60° D) 70°

Use similar triangles and the fact that corresponding sides are proportional to find the length of the side marked with an x.

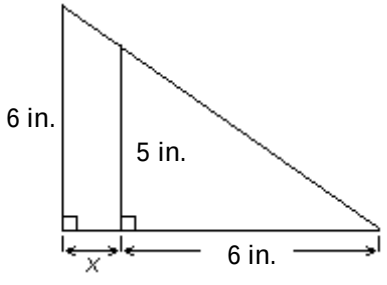
11) 11) _____



A) 18 m B) 9 m C) 13 m D) 27 m

Use similar triangles and the fact that corresponding sides are proportional to find the length of the segment marked with an x.

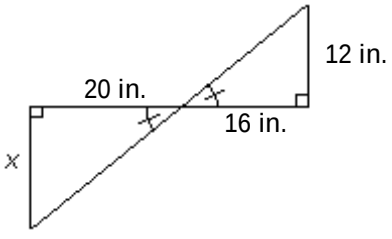
12) 12) _____



A) 1.2 in. B) 1.24 in. C) 1 in. D) 7.2 in.

Use similar triangles and the fact that corresponding sides are proportional to find the length of the side marked with an x.

13) 13) _____



A) 17 in. B) 15 in. C) 9.6 in. D) 26.67 in.

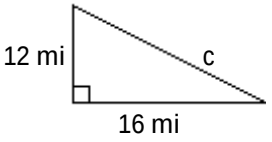
Use similar triangles to solve the problem.

14) A flagpole casts a shadow of 36 ft, Nearby, a 10-ft tree casts a shadow of 3 ft. What is the height of the flag pole? 14) _____

A) 10.8 ft B) 120 ft C) 0.8 ft D) 1080 ft

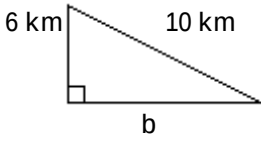
Use the Pythagorean Theorem to find the missing length in the right triangle. Use a calculator to find square roots, rounding, if necessary, to the nearest tenth.

15) 15) _____



A) 20 mi B) 14 mi C) 10.6 mi D) 19 mi

16) 16) _____



A) 9 km B) 8 km C) 10 km D) 7 km

Use the Pythagorean Theorem to solve the problem. Use your calculator to find square roots, rounding, if necessary, to the nearest tenth.

17) A 37-inch-square TV is on sale at the local electronics store. If 37 inches is the measure of the diagonal of the screen, use the Pythagorean theorem to find the length of the side of the screen. 17) _____

A) 6.1 in. B) 3 in. C) 684.5 in. D) 26.2 in.

18) A square sheet of paper measures 25 centimeters on each side. What is the length of the diagonal of this paper? 18) _____

A) 35.4 cm B) 50 cm C) 25 cm D) 1250 cm

19) A 15-foot pole is supported by two wires that extend from the top of the pole to points that are each 8 feet from the base of the pole. Find the total length of the two wires. 19) _____

A) 34 ft B) 578 ft C) 17 ft D) 46 ft

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Solve the problem.

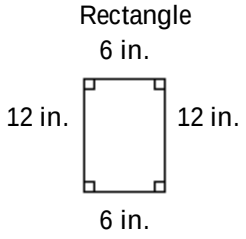
20) Brothers Matt and Jeff are leaning a 20-foot ladder against their house. If the ladder reaches 15 feet up the house, how far is the bottom of the ladder from the base of the house? Round to the nearest tenth. 20) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Find the perimeter of the figure named and shown. Express the perimeter in the same unit of measure that appears on the given side or sides.

21) 21) _____

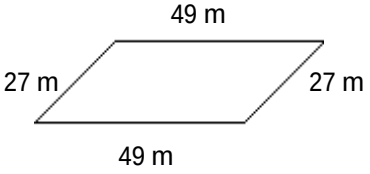
Rectangle



A) 36 in. B) 12 in. C) 24 in. D) 18 in.

22) 22) _____

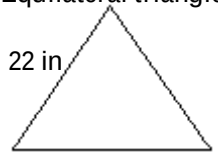
Parallelogram



A) 125 m B) 103 m C) 152 m D) 76 m

23) 23) _____

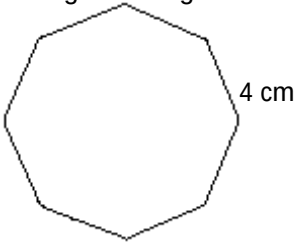
Equilateral triangle



A) 242 in B) 66 in C) 65 in D) 44 in

24) 24) _____

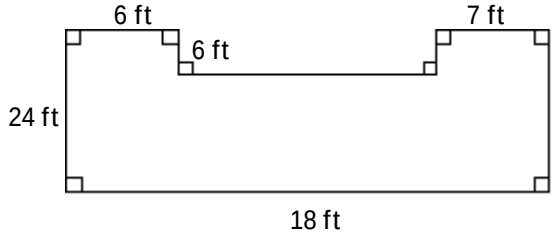
regular octagon



A) 28 cm B) 24 cm C) 32 cm D) 8 cm

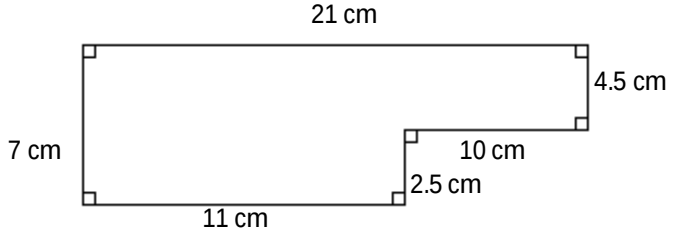
Find the perimeter of the figure shown. Express the perimeter in the same unit of measure that appears on the given side or sides.

25) 25) _____



A) 109 ft B) 90 ft C) 96 ft D) 72 ft

26) 26) _____



A) 59 cm B) 53.5 cm C) 51.5 cm D) 56 cm

Solve the problem.

27) A garden is in the shape of a rectangle 47 feet long and 25 feet wide. If fencing costs $7 a foot, what will it cost to place fencing around the garden? 27) _____

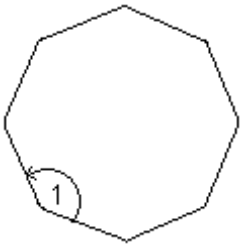
A) $8225 B) $1008 C) $504 D) $2016

28) Find the sum of the measures of the angles of a 6-sided polygon. 28) _____

A) 540° B) 180° C) 720° D) 1080°

The figure shows a regular polygon. Find the measure of angle 1.

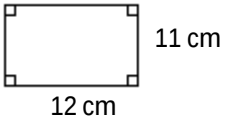
29) 29) _____



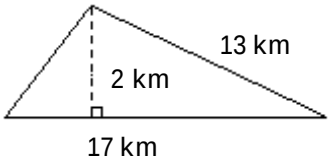
A) 120° B) 108° C) 180° D) 135°

Use formulas to find the area of the figure.

30) 30) _____

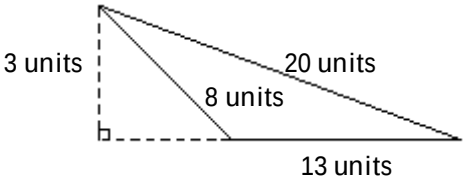


A) 46 cm^2 B) 23 cm^2 C) 132 cm^2 D) 44 cm^2

31) 

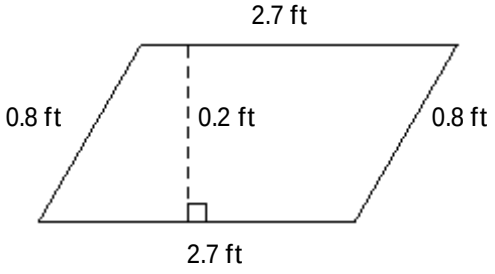
31) _____

A) 13 km^2 B) 17 km^2 C) 110.5 km^2 D) 34 km^2

32) 

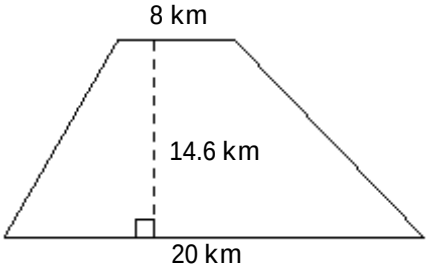
32) _____

A) 39 units^2 B) 30 units^2 C) 12 units^2 D) 19.5 units^2

33) 

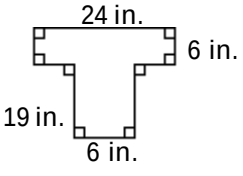
33) _____

A) 2.16 ft^2 B) 3.5 ft^2 C) 0.54 ft^2 D) 5.4 ft^2

34) 

34) _____

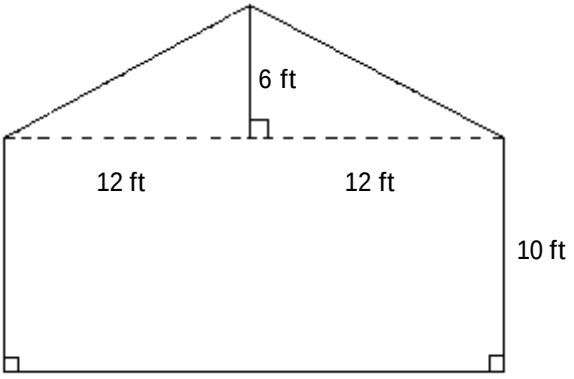
A) 408.8 km^2 B) 204.4 km^2 C) 292 km^2 D) 116.8 km^2

35) 

35) _____

A) 116 in.^{2} B) 175 in.^{2} C) 162 in.^{2} D) 258 in.^{2}

36) 36) _____



A) 17,280 ft^2 B) 240 ft^2 C) 72 ft^2 D) 312 ft^2

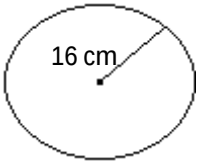
Solve the problem.

37) What will it cost to tile a rectangular floor measuring 255 feet by by 28 feet if the tile costs $16 per square foot? 37) _____

A) $114,240 B) $7140 C) $299 D) $9056

Find the circumference and area of the circle. Round the answer to the nearest whole number.

38) 38) _____



A) 50 cm, 201 cm^2 B) 101 cm, 101 cm^2

C) 101 cm, 804 cm^2 D) 50 cm, 3217 cm^2

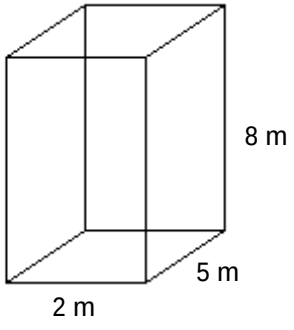
Solve the problem. Round all circumference and area calculations to the nearest whole number.

39) How much fencing is required to enclose a circular garden whose diameter is 287 m? 39) _____

A) 451 m B) 902 m C) 258,770 m D) 1803 m

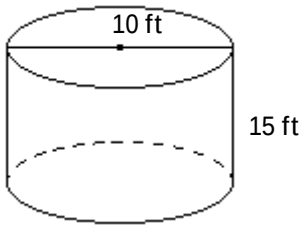
Find the volume of the figure. If necessary, round the answer to the nearest whole number.

40) 40) _____



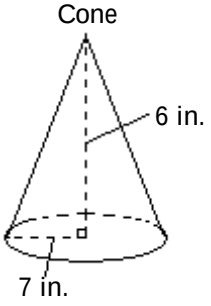
A) 50 m^3 B) 80 m^3 C) 320 m^3 D) 32 m^3

41) 41) _____



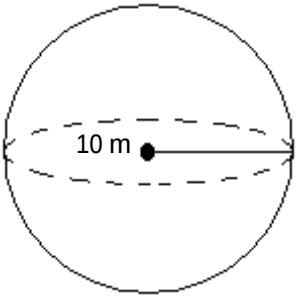
A) 1178 ft^3 B) 471 ft^3 C) 236 ft^3 D) 4712 ft^3

42) 42) _____



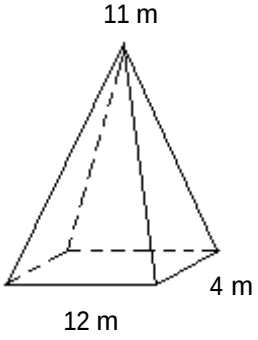
A) 615 $in.^3$ B) 88 $in.^3$ C) 462 $in.^3$ D) 308 $in.^3$

43) 43) _____



A) 2356 m^3 B) 524 m^3 C) 419 m^3 D) 4189 m^3

44) 44) _____



A) 176 m^3 B) 8448 m^3 C) 553 m^3 D) 528 m^3