

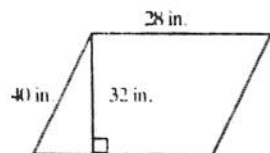
Review for 5.3 Test

Multiple Choice

Identify the letter of the choice that best completes the statement or answers the question.

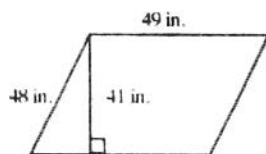
Find the area. The figure is not drawn to scale.

1



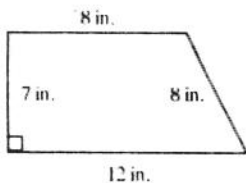
- A 1120 in.²
- B 60 in.²
- C 896 in.²
- D 120 in.²

2



- F 2352 in.²
- G 90 in.²
- H 180 in.²
- J 2009 in.²

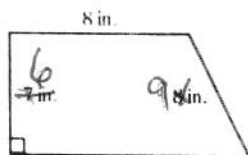
3



Not drawn to scale

- A 77.2 in.²
- B 80 in.²
- C 75 in.²
- D 70 in.²

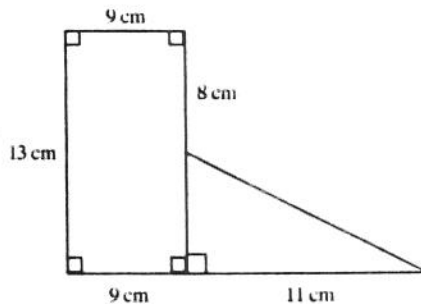
4



Not drawn to scale

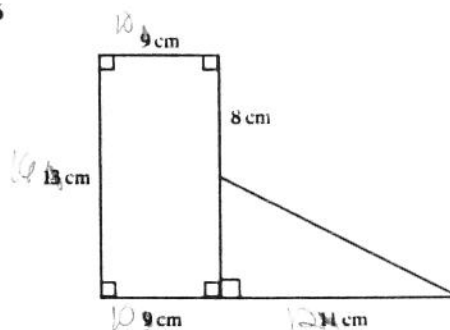
- ~~F 77.2 in.²~~
- ~~G 80 in.²~~
- ~~H 75 in.²~~
- ~~J 70 in.²~~

5



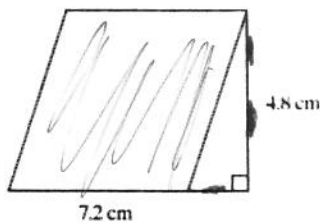
- A 144.5 cm²
- B 127 cm²
- C 172 cm²
- D 50 cm²

6



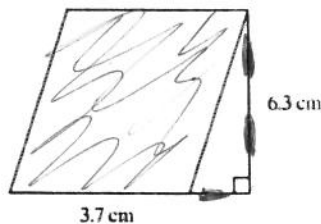
- F 144.5 cm²
- G 127 cm²
- H 172 cm²
- J 50 cm²

7



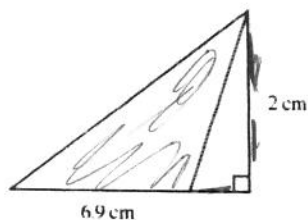
- A 69.12 cm²
- B 12 cm²
- C 34.56 cm²
- D 2.4 cm²

8



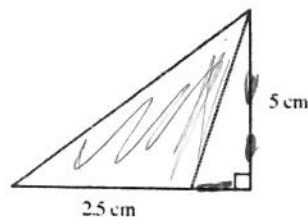
- F 46.62 cm²
- G 23.31 cm²
- H 10 cm²
- J 2.6 cm²

9



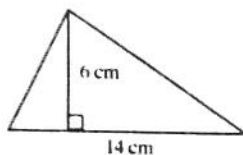
- A 6.9 cm^2
 B 27.6 cm^2
 C 8.9 cm^2
 D 13.8 cm^2

10



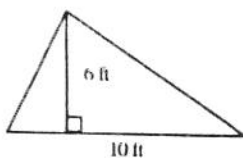
- F 7.5 cm^2
 G 12.5 cm^2
 H 6.25 cm^2
 J 25 cm^2

11



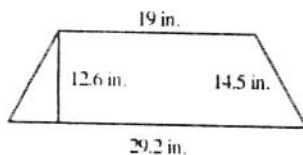
- A 84 cm^2
 B 20 cm^2
 C 42 cm^2
 D 10 cm^2

12



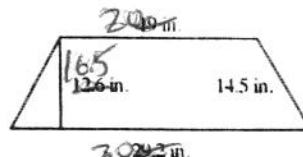
- F 30 ft^2
 G 16 ft^2
 H 60 ft^2
 J 8 ft^2

13



- A 607.32 in.^2
 B 36.7 in.^2
 C 303.66 in.^2
 D 77.2 in.^2

14



- F 607.32 in.^2
 G 36.7 in.^2
 H 303.66 in.^2
 J 77.2 in.^2

Find the area of the trapezoid. Leave your answer in simplest radical form.

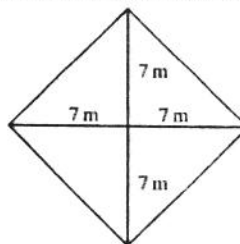
15 A kite has diagonals 8.3 ft and 7 ft. What is the area of the kite?

- A 30.6 ft^2
 B 58.1 ft^2
 C 29.05 ft^2
 D 7.65 ft^2

16 A kite has diagonals 5.4 ft and 9 ft. What is the area of the kite?

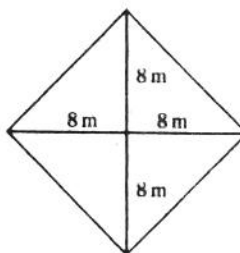
- F 7.2 ft^2
 G 48.6 ft^2
 H 24.3 ft^2
 J 28.8 ft^2

17 Find the area of the rhombus.



- A 24.5 m^2
 B 10.5 m^2
 C 2401 m^2
 D 98 m^2

18 Find the area of the rhombus.



- F 4096 m^2
 G 12 m^2
 H 128 m^2
 J 32 m^2

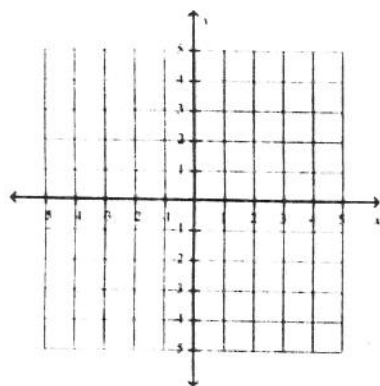
- 19 The area of a parallelogram is 300 cm^2 and the height is 25 cm. Find the corresponding base.

A 275 cm
B 12 cm
C 325 cm
D $7,500 \text{ cm}^2$

- 20 The area of a parallelogram is 250 cm^2 and the height is 25 cm. Find the corresponding base.

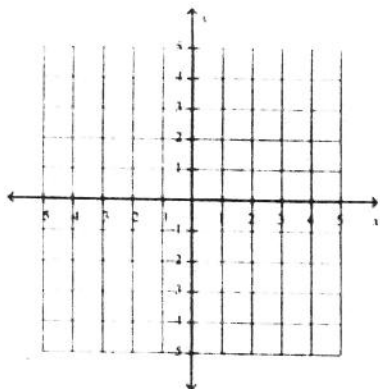
F 10 cm
G 275 cm
H $6,250 \text{ cm}^2$
J 225 cm

Find the area of a parallelogram with the given vertices.



- 21 $P(1, 3)$, $Q(3, 3)$, $R(9, 6)$, $S(11, 6)$

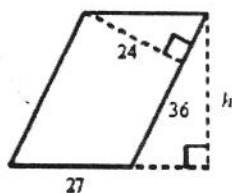
A 6 units²
B 3 units²
C 12 units²
D none of these



- 22 $P(2, 5)$, $Q(4, 5)$, $R(8, 9)$, $S(10, 9)$

F 8 units²
G 4 units²
H 16 units²
J none of these

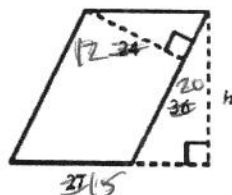
- 23 Find the value of h in the parallelogram.



Not drawn to scale

A 32
B 28
C 40.5
D 35

- 24 Find the value of h in the parallelogram.

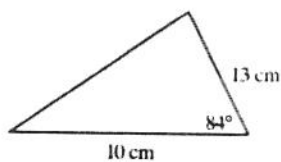


Not drawn to scale

~~F 32~~
~~G 28~~
~~H 40.5~~
~~J 35~~

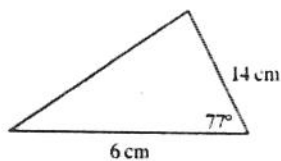
Find the area of the triangle. Give the answer to the nearest tenth. The drawing may not be to scale.

25



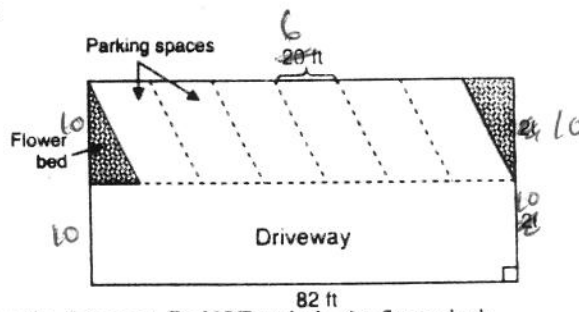
A 64.6 cm^2
B 129.3 cm^2
C 6.8 cm^2
D 618.4 cm^2

26



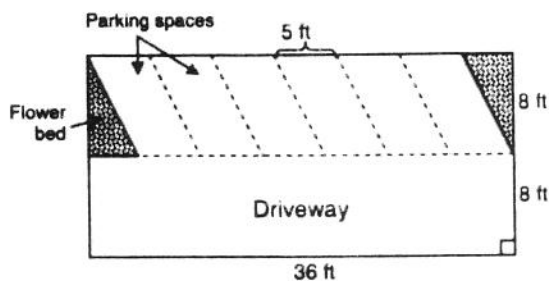
F 81.8 cm^2
G 9.4 cm^2
H 181.9 cm^2
J 40.9 cm^2


27. A rectangular parking lot for a bakery has 6 parking spaces that are congruent parallelograms as shown in the diagram.



- a. Find the area of each parking space.
- b. Find the total area of the parking lot, including the driveway. Do NOT include the flower beds.

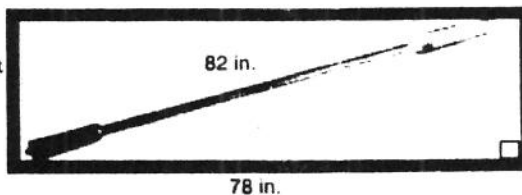
28. A rectangular parking lot for a bakery has parking spaces that are congruent parallelograms as shown in the diagram.



- c. Find the area of each parking space.
- 
- 36 ft
- d. Find the total area of the parking lot, including the driveway. Do NOT include the flower beds.

29. Naomi wants to build a frame to display an antique Roman spear that she bought from an antique dealer.

- a. If the spear is 82 inches long and her frame can be no longer than 78 inches on its longest side, what is the approximate height of the frame? Circle the closest answer below.

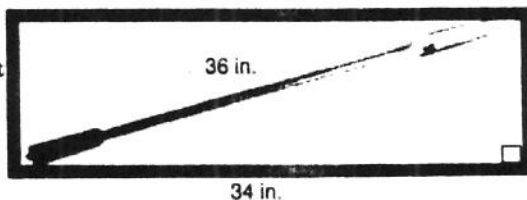


- 12 in. 19 in. 71 in.

- b. Based on your choice for the frame's height above, what is the total length of wood needed to build the **entire** frame?

30. Naomi wants to build a frame to display an antique Roman spear that she bought from an antique dealer.

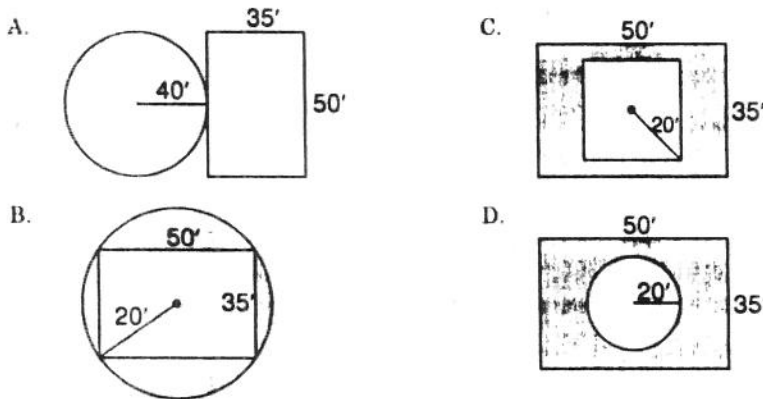
- c. If the spear is ~~82~~ inches long and her frame can be no longer than ~~18~~ inches on its longest side, what is the approximate height of the frame? Circle the closest answer below.



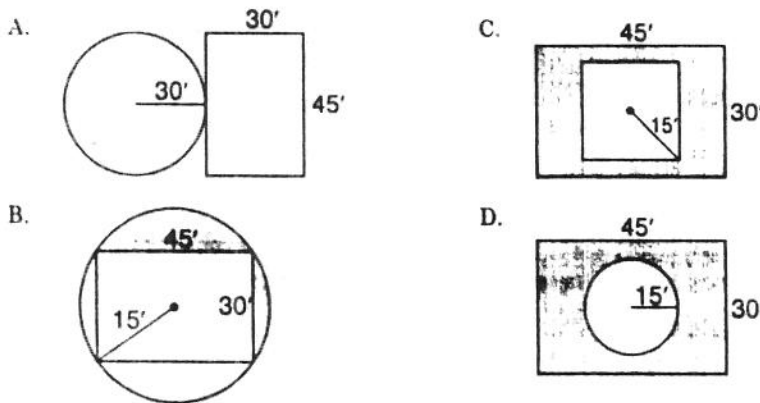
- 12 in. 19 in. 71 in.

- d. Based on your choice for the frame's height above, what is the total length of wood needed to build the entire frame?

31. Robert tied his dog to a pole with a 20' chain. The pole is in the center of Robert's 35' by 50' rectangular yard. Since the dog will only be able to run in a circular area that is 20 feet or less from the pole, Robert wants to calculate how much of his yard the dog will not be able to run on. Which diagram represents this problem?

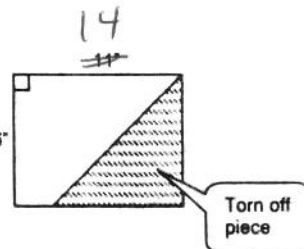


32. Robert tied his dog to a pole with a 15' chain. The pole is in the center of Robert's 30' by 45' rectangular yard. Since the dog will only be able to run in a circular area that is 15 feet or less from the pole, Robert wants to calculate how much of his yard the dog will not be able to run on. Which diagram represents this problem?



33. Tara took a sheet of paper that measured 11.5" by 14" and tore off a section in the shape of an isosceles triangle as shown.

Circle the expression below that you think best represents the area of the remaining paper and simplify it to find the actual area.



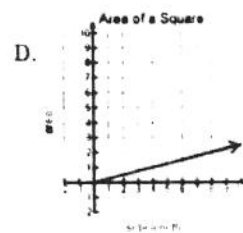
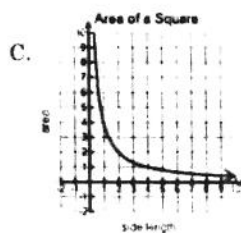
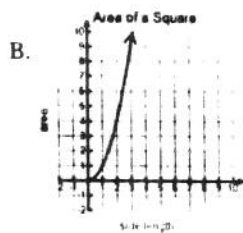
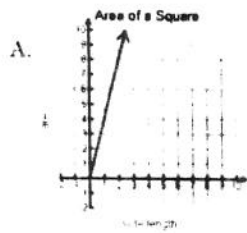
A $\frac{1}{2}(11.5)(14 + 2.5)$

A $\frac{1}{2}(11.5)^2 + (2.5)(11.5)$

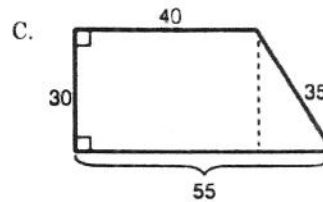
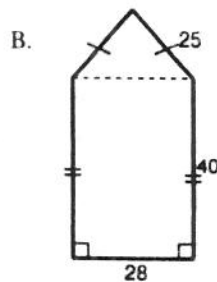
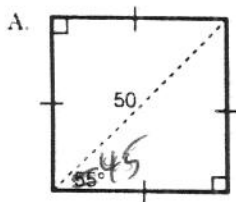
A $(11.5)(14) - \frac{1}{2}(11.5)(11.5)$

Simplify your chosen expression here.

34. The area of a square can be determined by the formula $A = s^2$ where A is the area of the square and s is the length of one side. Which graph below best represents the relationship between the area and side length of a square?



35. Which of the following figures has the greatest perimeter? Justify your answer by finding the perimeter of each figure to the nearest tenth of a unit.



Show work here for Figure A.

Perimeter = _____

Show work here for Figure B.

Perimeter = _____

Show work here for Figure C.

Perimeter = _____

36. Find the area of each figure in the problem above. Show all work for full credit. (9 pts. total)

Show work here for Figure A.

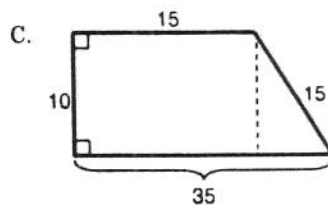
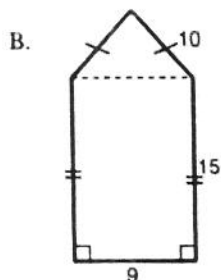
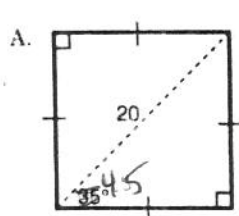
Area = _____

Show work here for Figure B.

Area = _____

Show work here for Figure C.

Area = _____



Perimeter = _____

Perimeter = _____

Perimeter = _____

Show work here for Figure A.

Area = _____

Area = _____

Area = _____