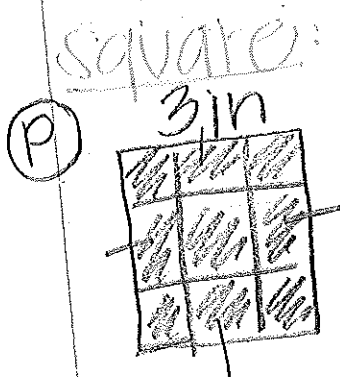# Area of all shapes

**Perimeter**: The sum of all sides "outside"

**Area**: The number of square units needed to cover a figure. "inside"

## Square:

(P) 3in



(E) $A = S^2$
(P) $A = 3^2$
(S) $A = 9 \text{ in}^2$

# Please Follow Proper Steps

## Rectangle:

3ft

(P) 0.5 ft

(E) $A = bh$
(P) $A = 3 \cdot 0.5$
(S) $A = 1.5 \text{ ft}^2$

## Parallelogram:

6m

(P) 12m  2m

(E) $A = bh$
(P) $A = 6 \cdot 2$
(S) $A = 12 \text{ m}^2$

# Area of all shapes

Perimeter: The sum of all sides
"outside"

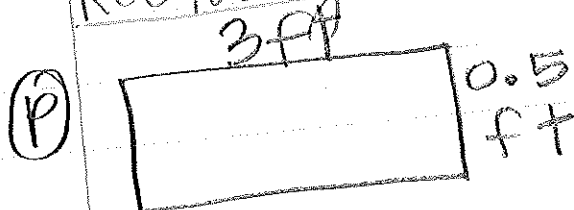Area: The number of square units needed to cover a figure.
"inside"

## Square:

(P) 3in

(E) $A = S^2$
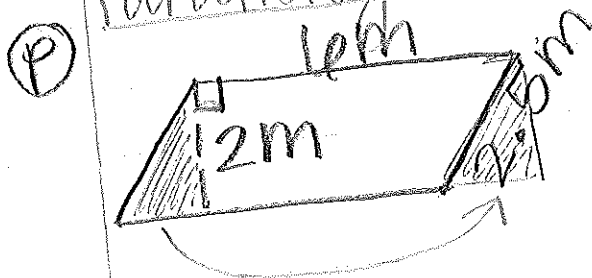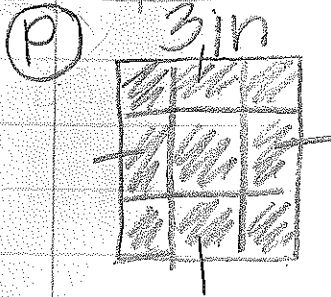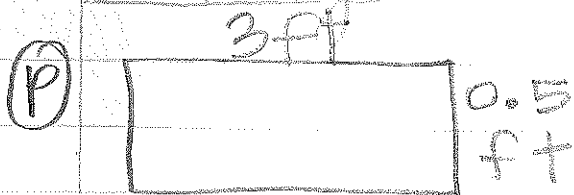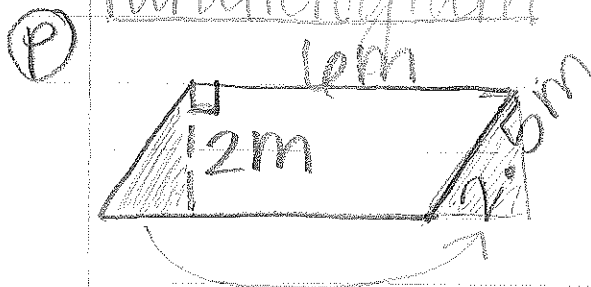(P) $A = 3^2$
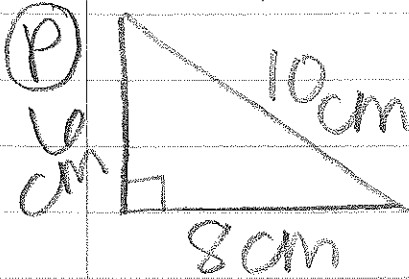(S) $A = 9 in^2$

# Please Follow Proper Steps!

## Rectangle

(P) 3ft

0.5 ft

(E) $A = bh$
(P) $A = 3 \cdot 0.5$
(S) $A = 1.5 ft^2$

## Parallelogram:

(P) 6m

12m

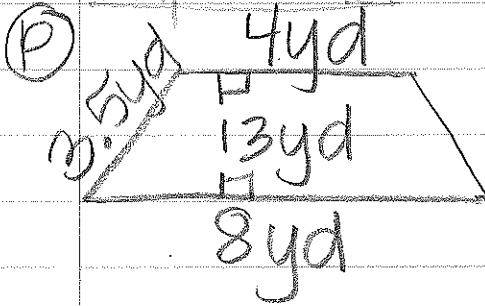(E) $A = bh$
(P) $A = 6 \cdot 2$
(S) $A = 12 m^2$

## Triangle

$P$ — triangle with sides 10cm (hypotenuse), 5cm (left), 8cm (bottom), right angle

$F$ $A = \frac{1}{2}bh$  $\qquad A = \frac{bh}{2}$

$P$ $A = \frac{1}{2} \cdot 8 \cdot 6$

$S$ $A = 4 \cdot 6$  $\qquad\qquad \frac{8 \cdot 6}{2}$

$\boxed{A = 24 cm^2}$

## Trapezoid

$P$ — trapezoid: 4yd (top), 3.5yd (slant), 13yd, 8yd (bottom)

$F$ $A = \frac{h(b_1 + b_2)}{2}$

$P$ $A = \frac{3(8^2 + 4)}{2}$

$S$ $\frac{3 \cdot 12}{2} \quad \frac{36}{2}$

$\boxed{A = 18 yd^2}$

Give both the perimeter and area of each figure.

① ②  13 cm × 10 cm

③ ④  15 cm, 17 cm, 20 cm

⑤ ⑥  11 m, 8 m, 9 m, 12 m

⑦ ⑧  10 in., 6 in., 8 in.

⑨ ⑩  16 cm, 15 cm, 16 cm, 19 cm

⑪ ⑫  50 ft, 30 ft, 53 ft
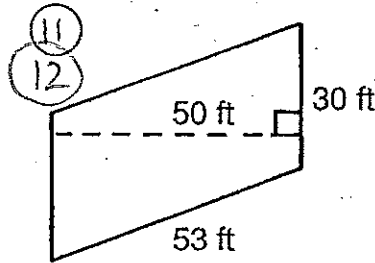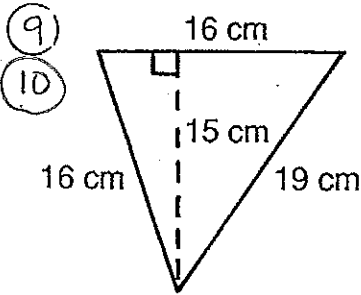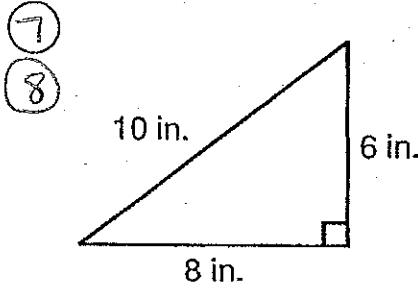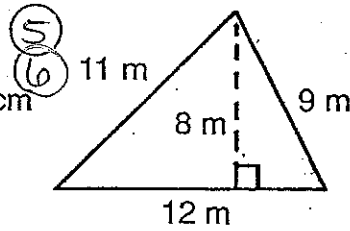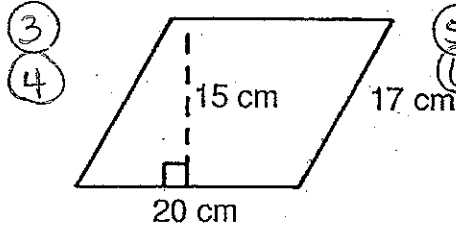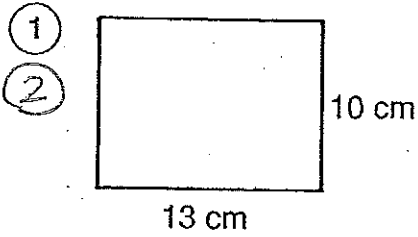
1. P =
2. A =

3. P =
4. A =

5. P =
6. A =

7. P =
8. A =

9. P =
10. A =

11. P =
12. A =

I. Find the area of each trapezoid.

⑬  5 cm, 4 cm, 10 cm

⑭  9 in., 6 in., 16 in.

⑮  20 m, 40 m, 50 m

⑯  1.4 cm, 1.6 cm, 3.2 cm

⑰  15 ft, 7 ft, 7 ft

⑱  2.5 m, 1.5 m, 2.8 m
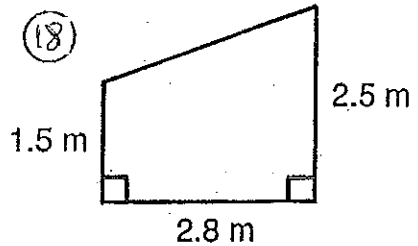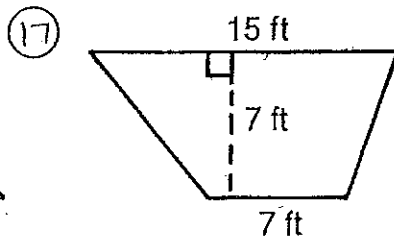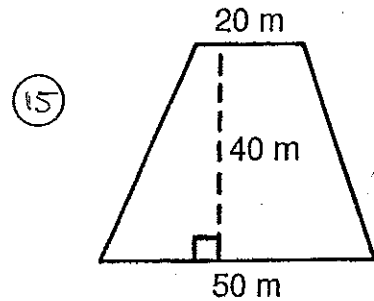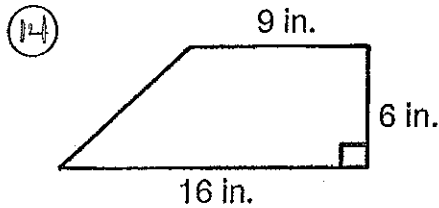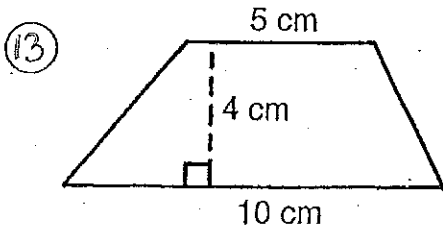
13. A =
14. A =
15. A =
16. A =
17. A =
18. A =

# Is It Area or Perimeter?

Circle whether the problem is asking about the area or the perimeter, then solve.

1) Mrs. Washington is thinking of putting new tile floors in her kitchen. The kitchen is a rectangular shape that is 13 ft wide and 16 ft long. How many ft² of tile will she have to purchase to cover the kitchen floor?

Area   or   Perimeter
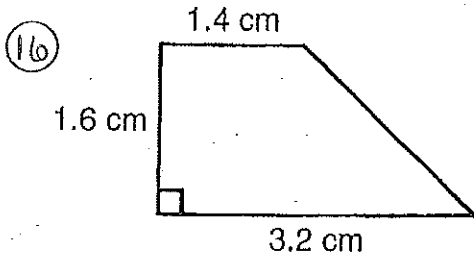
Answer: _____
       *NO NAKED NUMBERS!!!*

2) Michele is putting a decorative border around the edge of a picture frame to give as a gift. The frame is a square that is 6 in on each side. How many inches of border will she need to go around the picture frame?

Area   or   Perimeter

Answer: _____
       *NO NAKED NUMBERS!!!*

3) Jocquelyn just bought a brand new poster of Chris Brown that she wants to have framed. The poster is 3 ft tall and 1½ ft wide. How many feet of frame will it take to go around the outside of the poster?
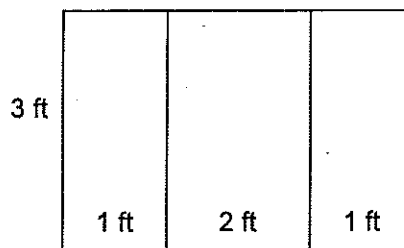
Area   or   Perimeter

Answer: _____
       *NO NAKED NUMBERS!!!*

4) Marissa is using the tri-fold poster board shown below to display her Science Project. How many square feet of surface does the poster board have?

Area   or   Perimeter

Answer: _____
       *NO NAKED NUMBERS!!!*

3 ft

1 ft    2 ft    1 ft

5) The groundskeeper at Magnolia Middle School wants to put brand new grass on the school playground. The playground is in the shape of a square and is 50 yards long on each side. How many yd² of grass will the groundskeeper need to get for the playground?

Area    or    Perimeter


Answer: _____
*NO NAKED NUMBERS!!!*


6) On the same playground as the previous problem, the principal decided to install fencing for safety reasons. How many yards of fencing will it take to go around all four sides of the playground?
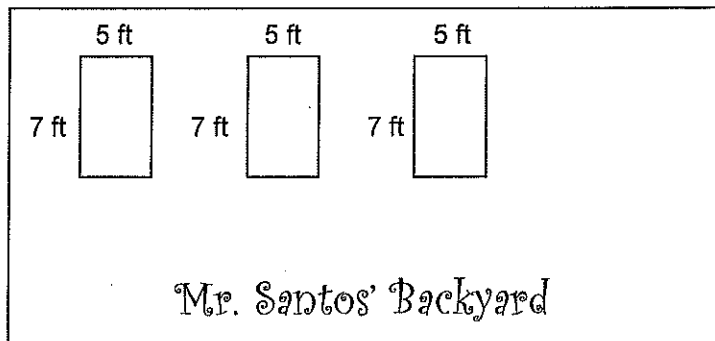
Area    or    Perimeter


Answer: _____
*NO NAKED NUMBERS!!!*


7) Mr. Santos has 3 small gardens in his backyard, as pictured below. How many square feet of his backyard do these gardens cover?

Area    or    Perimeter


Answer: _____
*NO NAKED NUMBERS!!!*

| 5 ft | 5 ft | 5 ft |
|------|------|------|
| 7 ft | 7 ft | 7 ft |

Mr. Santos' Backyard


8) A Volleyball court is a rectangle that is 18 m by 9 m. Coach Baird made her Volleyball team run 5 laps around the court to warm up before practice. How many meters did the team have to run each day before practice?

Area    or    Perimeter


Answer: _____
*NO NAKED NUMBERS!!!*