1) What is perimeter?           2) What is area?              3) What is volume?
**Distance Around an Object**    **Number of Squares to Cover**   **Number of Cubes to Fill**
                                **an Object**                  **An Object**

Given a figure and its dimensions, calculate its area.

4) Rectangle                         5) Rectangle                          6) Parallelogram
  b =  6 in        **A = b·h**        b = 25 mi        **A = b·h**          b = 52 m          **A = b·h**
  h =  15 in      **A = (6 in)(15 in)**   h = 43 mi    **A = (25 mi)(43 mi)**   h = 22 m     **A = (52 m)(22 m)**
$A =$            **A = 90 in²**       $A =$           **A = 1,075 mi²**      $A =$         **A = 1,144 m²**

7) Parallelogram                     8) Triangle                           9) Triangle
  b = 91 km        **A = b·h**        b = 47 yds       **A = (b·h)÷2**      b = 66 cm        **A = (b·h)÷2**
  h = 18 km      **A = (91 km)(18 km)**   h =16 yds    **A = (47 yd)(16 yd)**   h = 148 cm   **A = (66 cm)(148 cm)**
                                                       **2**                                 **2**
$A =$            **A = 1,638 km²**    $A =$           **A = 376 yd²**        A            **A = 4,884 cm²**
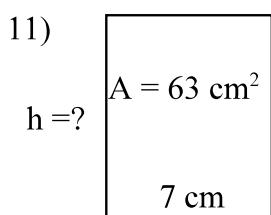
Given the area of a figure and its base or height, calculate the other dimension.
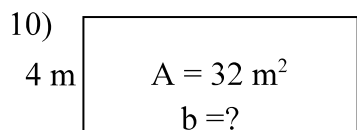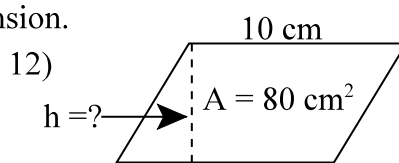
10)                                  11)                                  12)
4 m    $A = 32 m^2$                          $A = 63 cm^2$     h =?→   $A = 80 cm^2$   10 cm
         b =?                       h =?                      **A = b·h**
  **A = b·h**                                                **63 cm² = (7 cm)h**    **A = b·h**
  **32 m² = b(4m)**                         7 cm            **9 cm = h**           **80 cm² = (10 cm)h**
  **8m = b**                                                                       **8 cm = h**
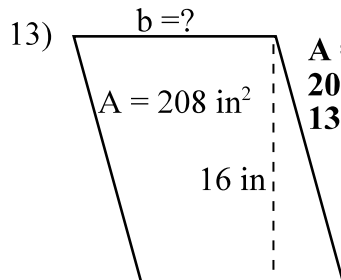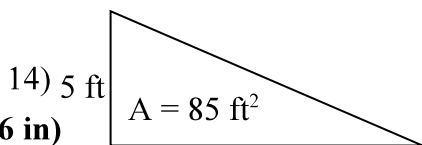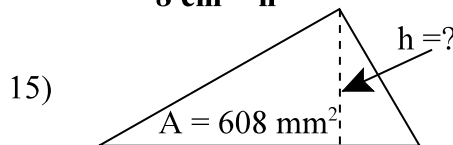
13)    b =?                    14) 5 ft  $A = 85 ft^2$            15)              h =?
     $A = 208 in^2$   **A = b·h**                                       $A = 608 mm^2$
                     **208 in² = b(16 in)**     b =?                      32 mm
                     **13 in = b**            **A = (b·h)**            **A = (b·h)**
       16 in                                  **2**                    **2**
                                              **85 ft² = b(5 ft)**     **608 mm² = (32 mm)h**
                                              **2**                    **2**
                                              **34 ft = b**            **38 mm = h**

Give the perimeter of the following polygons.          Find the length of the missing side.

16)                          17)                    18)                      19)  P=16 7/12 mi
      27 mi.                      92.4 m    101.5 m
14 mi                                                    27 m                      5 2/3 mi
        **P=98 mi**   26 mi  114.7 m      98.9 m           41 m                      **x =**
                             **P= 600.4 m**                                          **8 1/6 mi**
12 mi                                               **P=133 m**
      19 mi                  81.7 m   111.2 m      19 m        **x = 12 m**    2 3/4 mi
                                                    34 m
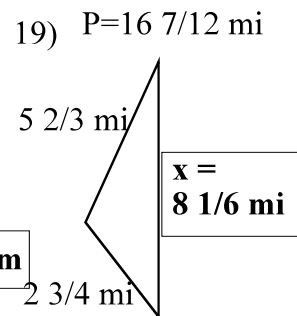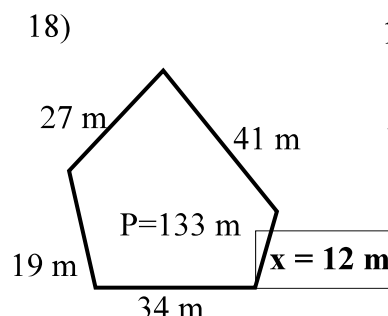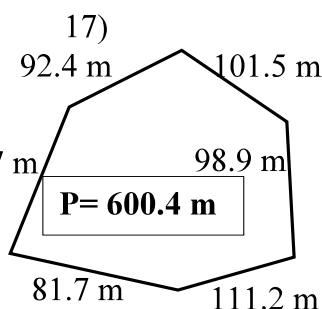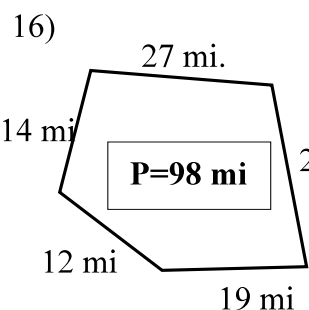
20)  A sheet of shingles covers 12 ft². How  many       21)  A can full of paint covers 300 ft². How many
sheets are needed to cover a roof of 744 ft²? What      cans will be needed to cover a surface of 1,800 ft²?
will the shingles for the job cost be at $2.00/sheet?   What will the paint cost at $12.00/can?

$$\frac{62\ sheets}{12\ ft^2 \overline{)\ 744\ ft^2}}$$  **62 sheets($2.00) = $124.00**   $$\frac{6\ cans}{300\overline{)1,800}}$$   **6 cans($12.00) = $72.00**