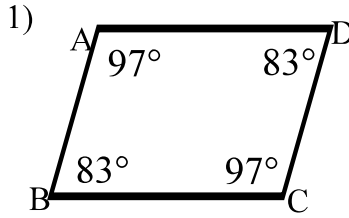


Parallelograms 2  
Geometry

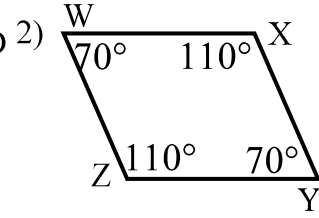
KEY

Find the measure of each angle.



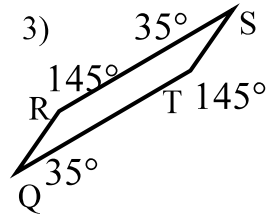
$$360 - 97 - 97 = 166$$

$$166 \div 2 = 83$$



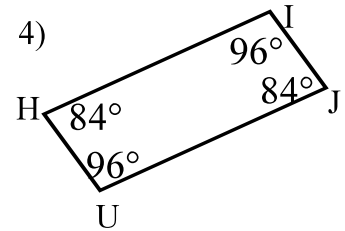
$$360 - 110 - 110 = 140$$

$$140 \div 2 = 70$$



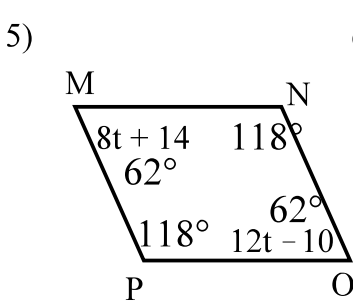
$$360 - 145 - 145 = 70$$

$$70 \div 2 = 35$$



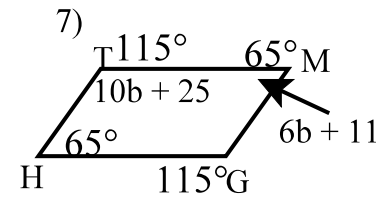
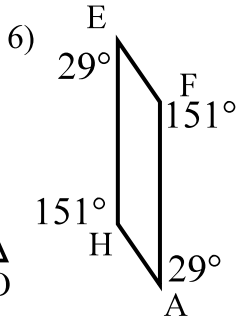
$$360 - 84 - 84 = 192$$

$$192 \div 2 = 96$$



$$8t + 14 = 12t - 10$$

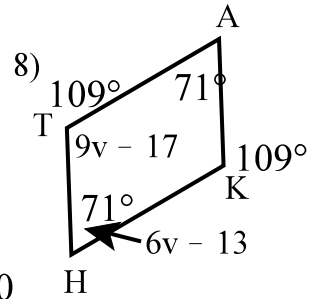
$$\begin{array}{r} -8t + 10 \\ -8t + 10 \\ \hline 24 = 4t \\ 4 \quad 4 \\ \hline 6 = t \end{array}$$



$$10b + 25 + 6b + 11 = 180$$

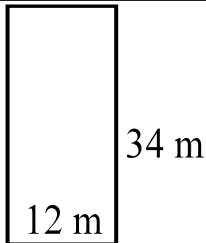
$$16b + 36 = 180$$

$$\begin{array}{r} -36 \\ -36 \\ \hline 16b = 144 \\ 16 \quad 16 \\ \hline b = 9 \end{array}$$

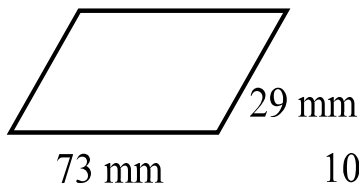


Find the perimeter of each parallelogram.

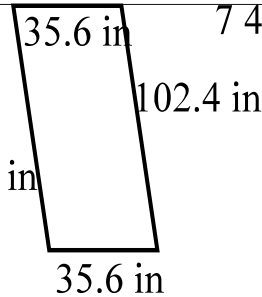
9) P = 92m      10) P = 204mm      11) P = 276 in      12) P = 60 in



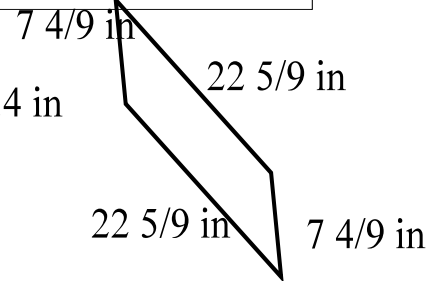
$$\begin{array}{r} 12m \\ +12m \\ +34m \\ +34m \\ \hline 92m \end{array}$$



$$\begin{array}{r} 73mm \\ +73mm \\ +29mm \\ +29mm \\ \hline 204mm \end{array}$$



$$\begin{array}{r} 35.6 \text{ in} \\ +35.6 \text{ in} \\ +102.4 \text{ in} \\ +102.4 \text{ in} \\ \hline 276 \text{ in} \end{array}$$



$$\begin{array}{r} 7 \frac{4}{9} \text{ in} \\ +7 \frac{4}{9} \text{ in} \\ +22 \frac{5}{9} \text{ in} \\ +22 \frac{5}{9} \text{ in} \\ \hline 60 \text{ in} \end{array}$$

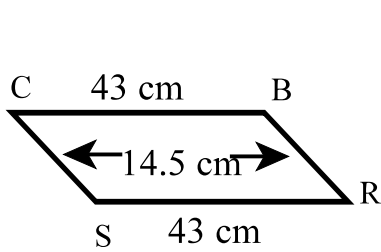
Find the length of the sides of each parallelogram.

13)  $P = 115 \text{ cm}$

14)  $P = 316 \text{ yds}$

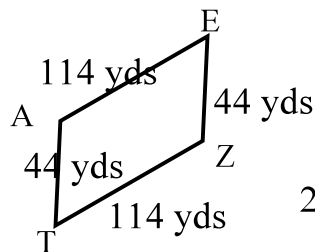
15)  $P = 67 \text{ m}$

16)  $P = 269.2 \text{ in}$



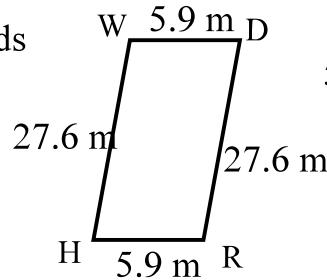
$$115 \div 2 = 57.5$$

$$57.5 - 43 = 14.5$$



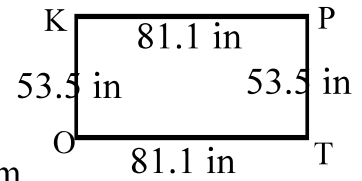
$$316 \div 2 = 156$$

$$156 - 44 = 114$$



$$67 \div 2 = 33.5$$

$$33.5 - 27.6 = 5.9$$



$$269.2 \div 2 = 134.6$$

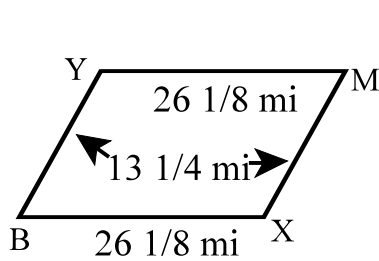
$$134.6 - 53.5 = 81.1$$

17)  $P = 78 \frac{3}{4} \text{ mi}$

18)  $P = 216 \frac{5}{8} \text{ cm}$

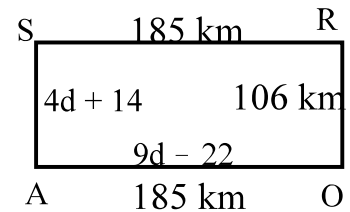
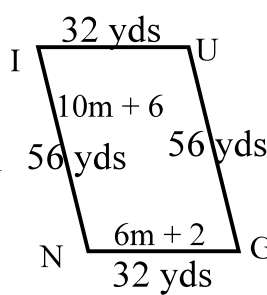
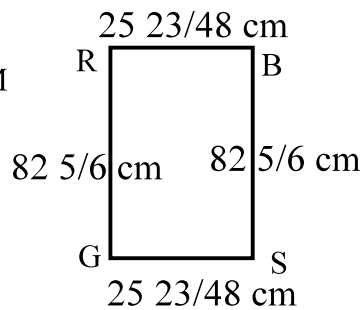
19)  $P = 176 \text{ yds}$

20)  $P = 582 \text{ km}$



$$78 \frac{3}{4} \div 2 = 39 \frac{3}{8}$$

$$39 \frac{3}{8} - 26 \frac{1}{8} = 13 \frac{1}{4}$$



$$4d + 14 + 9d - 22 = 582 \div 2$$

$$13d - 8 = 291$$

$$\begin{array}{r} \phantom{13}d - 8 \\ + 8 \phantom{d} + 8 \\ \hline 13d = 291 \\ 13 \phantom{d} \phantom{=} \\ \hline d = 23 \end{array}$$

$$4d + 14 = 4(23) + 14 = 106 \text{ km}$$

$$9d - 22 = 9(23) - 22 = 185 \text{ km}$$