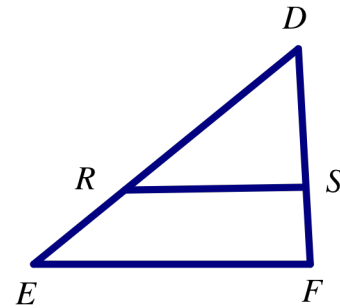


## Line Parallel to One Side of Triangle

If a line is parallel to one side of a triangle and intersects the other two sides, it divides them proportionately.

For problems 1-8, refer to  $\triangle DEF$  with  $\overline{RS} \parallel \overline{EF}$ .

1.  $\frac{DR}{RE} = \frac{x}{SF}$ , fill in.
2.  $\frac{DR}{RS} = \frac{y}{EF}$ , fill in.
3.  $DR = 4$ ,  $RE = 5$ ,  $DS = 5$ , find  $SF$ .
4.  $DS = 6$ ,  $SF = 8$ ,  $DR = 4$ , find  $RE$ .
5.  $DE = 12$ ,  $DR = 5$ ,  $DF = 15$ , find  $DS$ .
6.  $DF = 16$ ,  $DS = 6$ ,  $DE = 12$ , find  $DR$ .
7.  $DR = 4$ ,  $DE = 10$ ,  $DF = 14$ , find  $SF$ .
8.  $DF = 18$ ,  $SF = 10$ ,  $DE = 14$ , find  $DR$ .
9.  $DE = 7$ ,  $DS = 6$ ,  $SF = 10$ , find  $DR$ .
10.  $DF = 15$ ,  $DR = 4$ ,  $RE = 6$ , find  $SF$ .



For problems 11- 14, refer to  $\triangle MNO$  with  $\overline{AB} \parallel \overline{MN}$   
And find the value of  $x$ .

11.  $OA = x + 2$ ,  $OB = 4x - 2$ ,  $AM = 4x - 2$  and  $BN = 5x - 1$ .
12.  $OA = 2x - 2$ ,  $OB = 2x + 1$ ,  $AM = 3x - 4$  and  $BN = 2x + 4$ .
13.  $OA = x + 1$ ,  $OB = 2x - 2$ ,  $OM = 4x - 2$  and  $ON = 5x - 1$ .
14.  $AM = 4x - 6$ ,  $BN = 6x - 5$ ,  $OM = 2x + 6$  and  $ON = 8x - 2$

