Segment Addition Postulate **August 20, 2018**

1. Draw a figure the models the following situation, and then create a true equation using their segment lengths:

   "*R*, *W*, and *M* are collinear points, and *W* is between *M* and *R*"

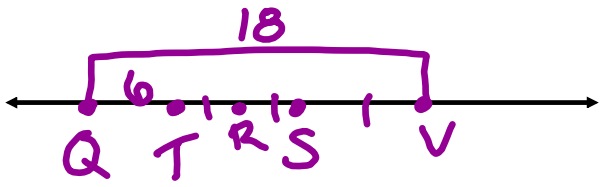
$WR + MW = MR$

2. *S* is between *T* and *V*, *R* is between *S* and *T*, and *T* is between *R* and *Q*

   $QV = 18$

   $QT = 6$

   $TR = RS = SV$



   a) Find *RS* 4
   b) Find *QS* 14
   c) Find *TS* 8
   d) Find *TV* 12

3. Given that *J* is between *H* and *K,* solve for *x* and find the length of each segment:

a) $HJ = 5x - 3$ 52
$JK = 8x - 9$ 79
$KH = 131$

$HJ + JK = KH$

$(5x-3) + (8x-9) = 131$

$13x - 12 = 131$

$13x = 143$

$x = 11$

b) $HJ = 2x + \frac{1}{3}$ $\frac{7}{3}$
$JK = 5x + \frac{2}{3}$ $\frac{17}{3}$
$KH = 12x - 4$ 8

$(2x + \frac{1}{3}) + (5x + \frac{2}{3}) = 12x - 4$

$7x + 1 = 12x - 4$

$5 = 5x$

$x = 1$