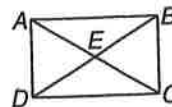## 8-4 Skills Practice

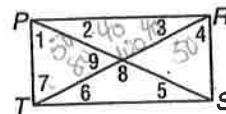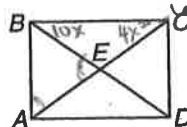### Rectangles

ALGEBRA *ABCD* is a rectangle.

1. If $AC = 2x + 13$ and $DB = 4x - 1$, find x. **7**

2. If $AC = x + 3$ and $DB = 3x - 19$, find AC. **14**

3. If $AE = 3x + 3$ and $EC = 5x - 15$, find AC. **60**

4. If $DE = 6x - 7$ and $AE = 4x + 9$, find DB. **82**

5. If $m\angle DAC = 2x + 4$ and $m\angle BAC = 3x + 1$, find x. **17**

6. If $m\angle BDC = 7x + 1$ and $m\angle ADB = 9x - 7$, find $m\angle BDC$. **43**

7. If $m\angle ABD = x^2 - 7$ and $m\angle CDB = 4x + 5$, find x. **6**

8. If $m\angle BAC = x^2 + 3$ and $m\angle CAD = x + 15$, find $m\angle BAC$. **67 or 84**

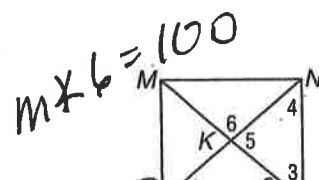*PRST* is a rectangle. Find each measure if $m\angle 1 = 50$.

9. $m\angle 2$ **40**

10. $m\angle 3$ **40**

11. $m\angle 4$ **50**

12. $m\angle 5$ **40**

13. $m\angle 6$ **40**

14. $m\angle 7$ **50**

15. $m\angle 8$ **100**

16. $m\angle 9$ **80**

ABCD is a rectangle.

1. If $AE = 36$ and $CE = 2x - 4$, find x. **20**

2. If $BE = 6y + 2$ and $CE = 4y + 6$, find y. **2**

3. If $BC = 24$ and $AD = 5y - 1$, find y. **5**

4. If $m\angle BEA = 62$, find $m\angle BAC$. **59**

5. If $m\angle AED = 12x$ and $m\angle BEC = 10x + 20$, find $m\angle AED$. **120**

6. If $BD = 8y - 4$ and $AC = 7y + 3$, find BD. **52**

7. If $m\angle DBC = 10x$ and $m\angle ACB = 4x^2 - 6$, find $m\angle ACB$. **30**

8. If $AB = 6y$ and $BC = 8y$, find BD in terms of y. **10y**

9. In rectangle *MNOP*, $m\angle 1 = 40$. Find the measure of each numbered angle.

m∠2=40 m∠3=50 m∠4=50 m∠5=80 m∠6=100