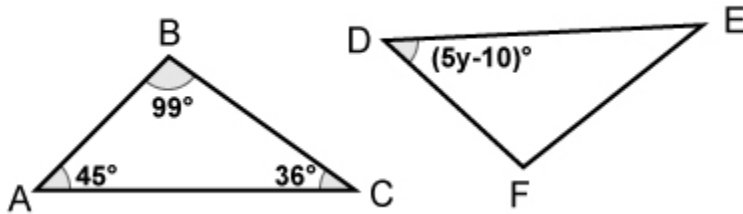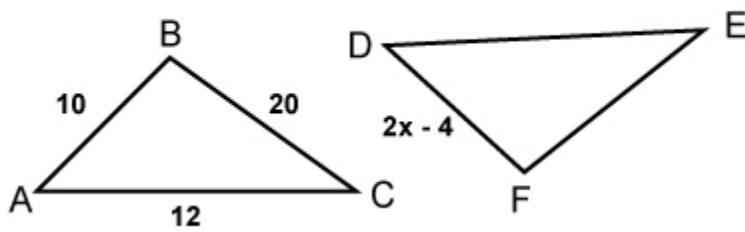**Algebra 2**
Triangles Writing Assignment
Each problem is worth 5 points.
Total = 50 points

Answer each of the following problems. Show all your work.
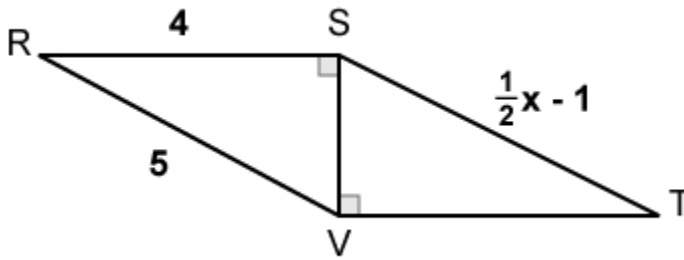
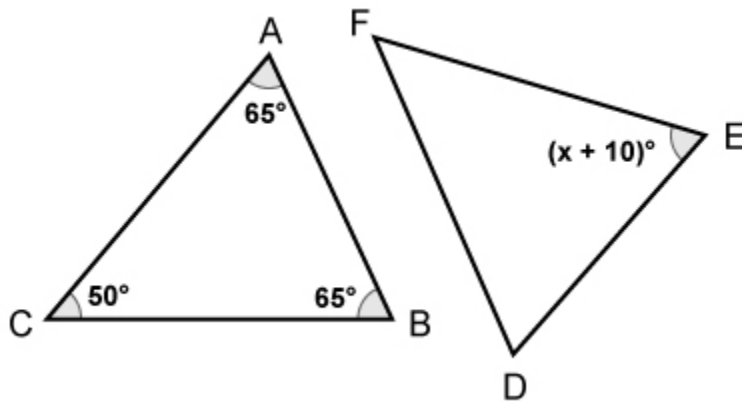1. Triangle ABC is congruent to triangle DFE. Find y.

B

D
E
(5y-10)°

99°

45°
36°
A
C
F

2. Triangle ABC is congruent to triangle DFE. Find x.
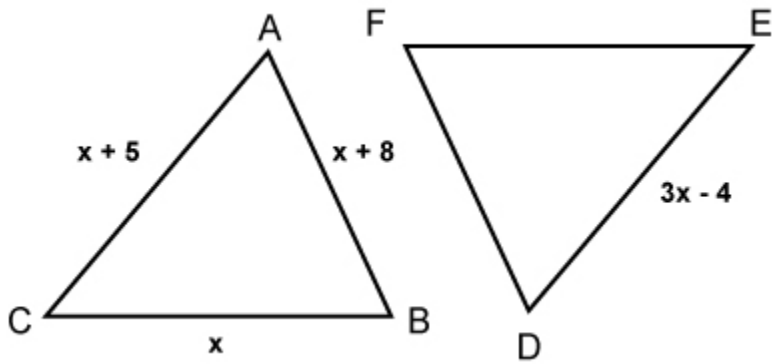
B
D
E

10
20
2x - 4

A
12
C
F

3. Triangle RSV is congruent to triangle TVS. Find x.

4. Triangle ABC and DEF are congruent. Find x.
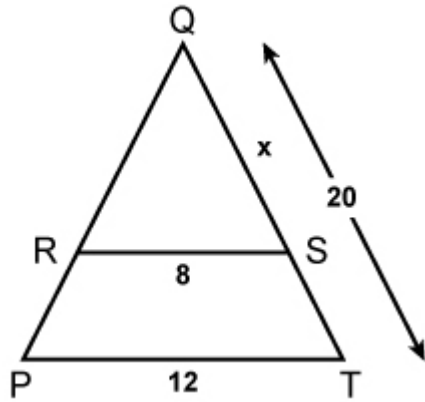
5. Triangle ABC and DEF are congruent. Find x.

A   F

x + 5   x + 8

3x - 4

C   B
  x   D

6. Triangles WSR and TVR are similar. Find x.
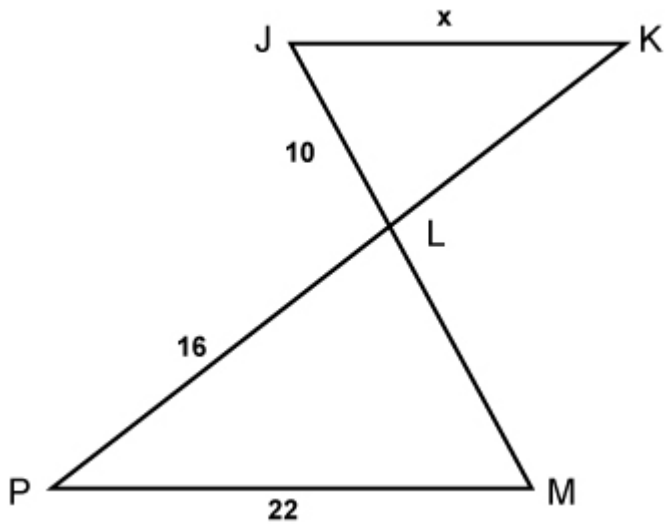
S

10

R   x + 6

W   T
  x + 2

20

V
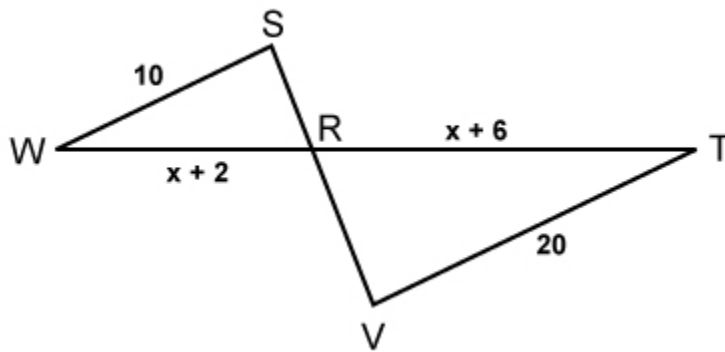
7. Triangles QVS and RTS are similar. Find side VS.
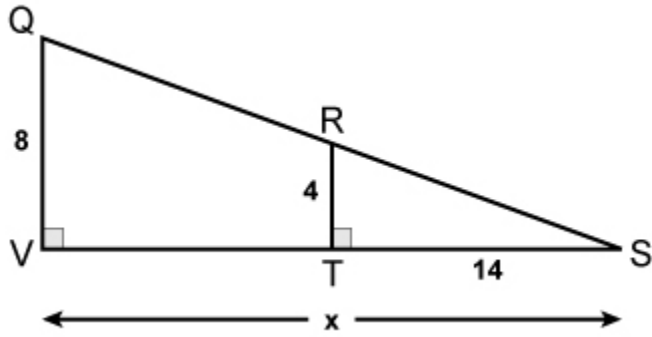
8. Triangles QPT and QRS are similar. Find x.

9. Triangles JKL and PML are similar. Find x.

10. Triangles MOP and MNQ are similar. Find x.

$\overline{MQ}$	=	5
$\overline{QP}$	=	x
$\overline{MN}$	=	15
$\overline{NO}$	=	2