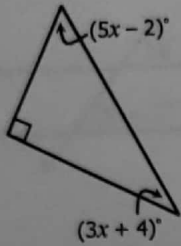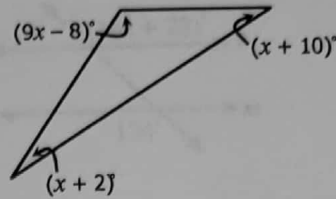# More Practice: Solving for Angles in Triangles

Directions: Find the value of x.
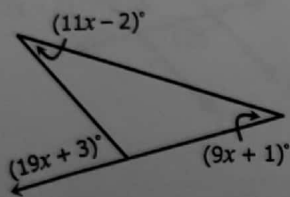
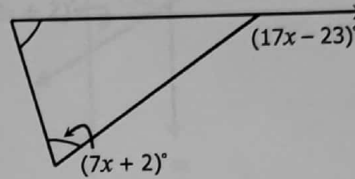**1.**
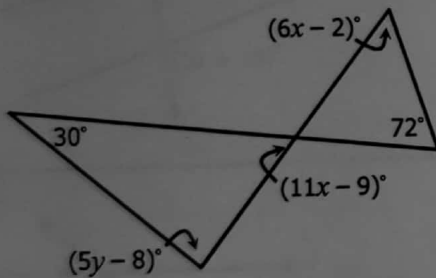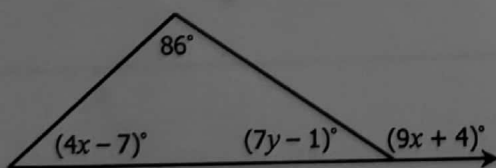
$(5x-2)°$

$(3x+4)°$

2.

$(9x-8)°$

$(x+10)°$

$(x+2)$

3.

$(11x-2)°$

$(19x+3)°$ $(9x+1)°$

4.

$(17x-23)°$

$(7x+2)°$

5. Find the values of x and y in the diagram below.

$(6x-2)°$

$30°$ $72°$

$(11x-9)°$

$(5y-8)°$

6. Find the values of x and y in the diagram below.

$86°$

$(4x-7)°$ $(7y-1)°$ $(9x+4)°$

7. If $l \parallel m$, find the values of x and y in the diagram below.
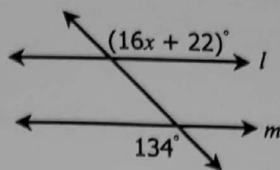
$63°$ $(5x-8)°$

$(7x-31)°$

$(4y+27)°$ m

l
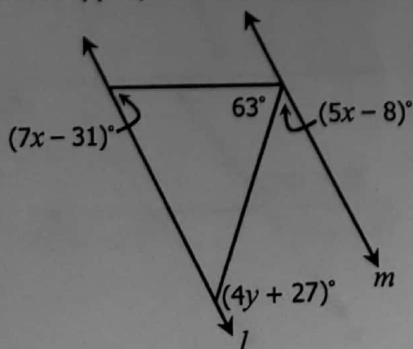
Parallel Lines, Transversals, and Algebra!

Directions: If $l \parallel m$, find the value of each missing variable(s).

1.

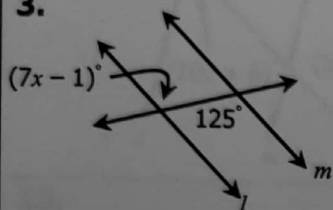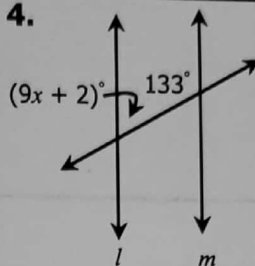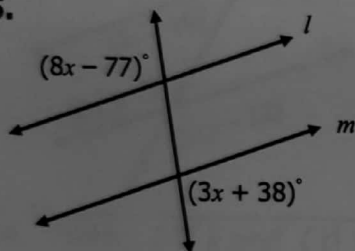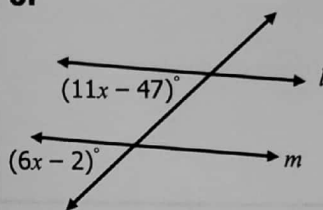$58°$ $\quad l$

$(5x - 2)°$ $\quad m$

2.

$(16x + 22)°$ $\quad l$

$134°$ $\quad m$

3.

$(7x - 1)°$

$125°$

m

l

4.

$(9x + 2)°$ $\quad 133°$

$l \quad m$

5.

l

$(8x - 77)°$

m

$(3x + 38)°$

6.

$(11x - 47)°$ $\quad l$

$(6x - 2)°$ $\quad m$

7.

l

$(13x - 21)°$

$(5x + 75)°$

m

8.

l

$(5x + 3)°$

$(9x - 33)°$

m

9.

l

$(8x - 31)°$ $\quad (5y + 35)°$

$(6x + 3)°$

m

10.

$(29x - 3)°$

$(13y - 17)°$ $\quad (15x + 7)°$

m

l

11.

$(18x - 44)°$ l
$(8x - 10)°$ m
$(13y - 38)°$

12.

$(9x - 2)°$
$(10y + 6)°$ $(5x + 54)°$
l m

13.

$(3x - 16)°$ l
$(6x + 7)°$ m
$(11y - 32)°$

14. Note: $j \parallel k$ and $l \parallel m$

$(15y - 48)°$
$(8x - 1)°$ j
$(11x - 25)°$ k
l m

15.

$39°$ $(4x + 4)°$ l
  m
$(7x - 44)°$ $(8y - 43)°$

16.

$(15x - 26)°$ $28°$ $(12x + 1)°$
$(4y - 9)°$
l m
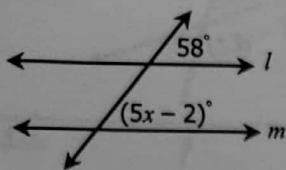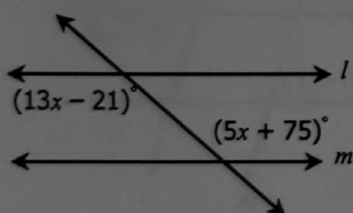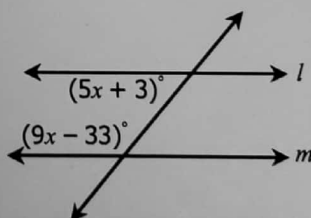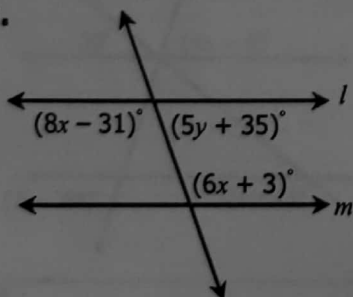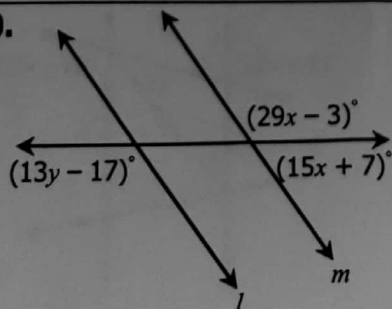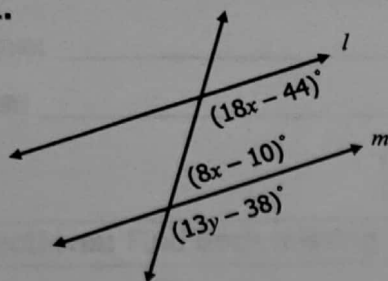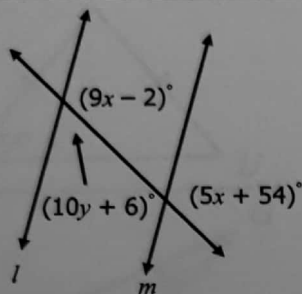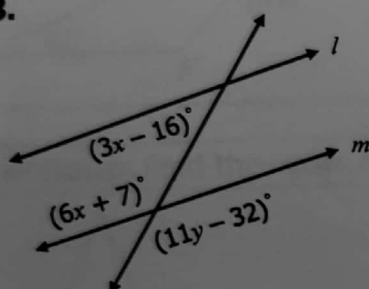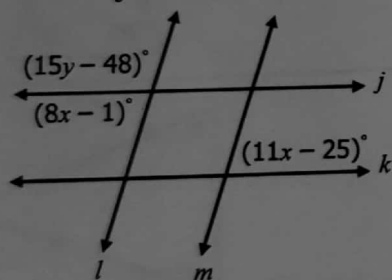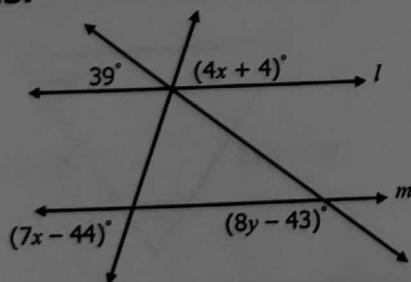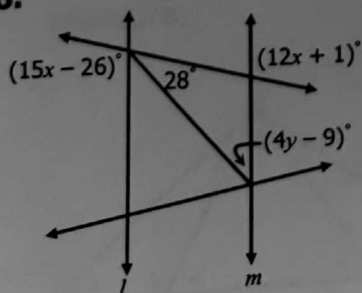
Unit 4: Congruent Triangles
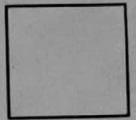
Homework 3: Isosceles & Equilateral Triangles

Directions: Find each missing measure.

1.

$m\angle T =$ _____

$m\angle U =$ _____

54°

2.

28°

$m\angle M =$ _____

$m\angle N =$ _____

3.

23°

18 in

23°

$EF =$ _____

$m\angle F =$ _____

4.

$m\angle P =$ _____

$m\angle Q =$ _____

$m\angle R =$ _____
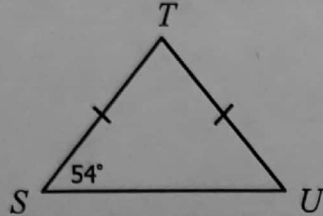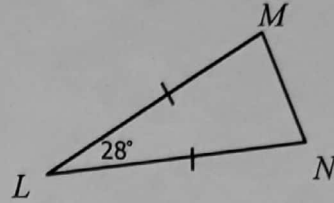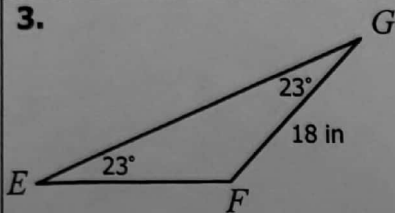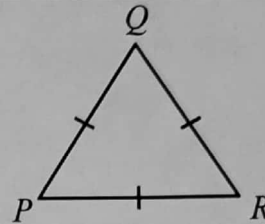
Directions: Find the value of each variable.

5.

$4x + 23$ $10x - 1$

78°   78°

6.

104°

$(9x - 25)°$

7.

$(5x - 7)°$

$(8x - 55)°$

8.

$(4x + 8)°$

9.

60°

$7x + 19$ $11x - 89$

60°

10.

29°

$(11x - 65)°$
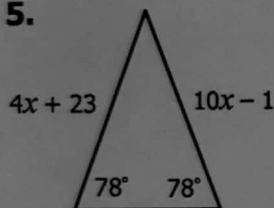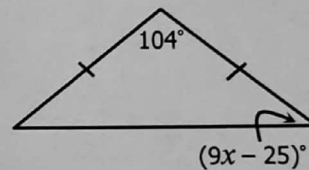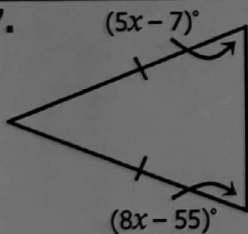
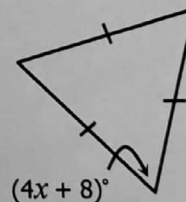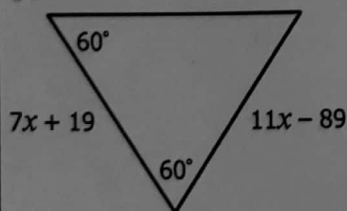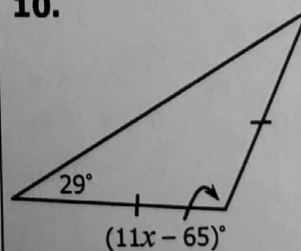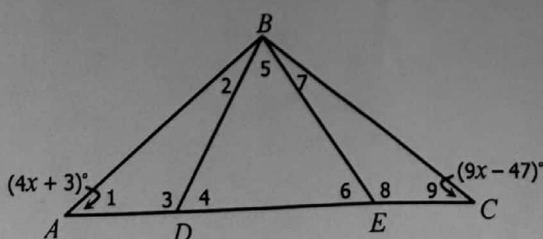**11.** If $\triangle ABC$ is an isosceles triangle and $\triangle DBE$ is an equilateral triangle, find each missing measure.

$m\angle 1 =$ _____ $m\angle 6 =$ _____

$m\angle 2 =$ _____ $m\angle 7 =$ _____

$m\angle 3 =$ _____ $m\angle 8 =$ _____

$m\angle 4 =$ _____ $m\angle 9 =$ _____

$m\angle 5 =$ _____

B

2 5 7

$(4x + 3)°$

1 3 4   6 8 9 $(9x - 47)°$

A   D   E   C