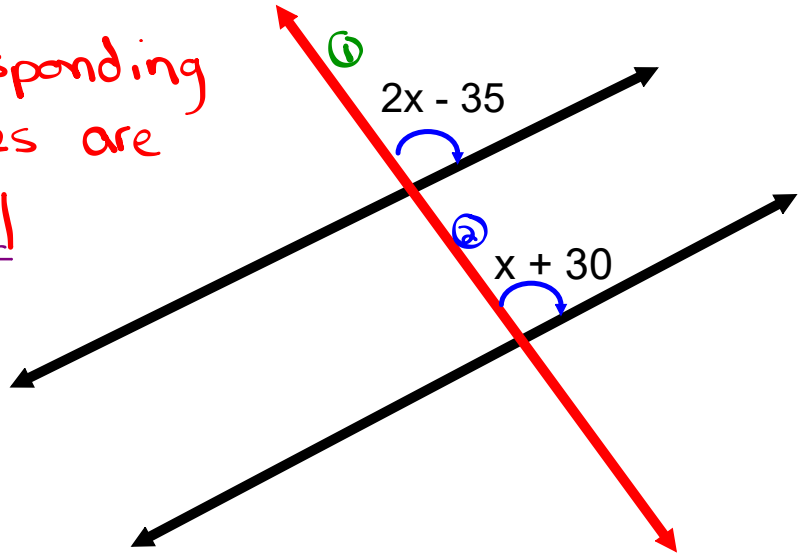
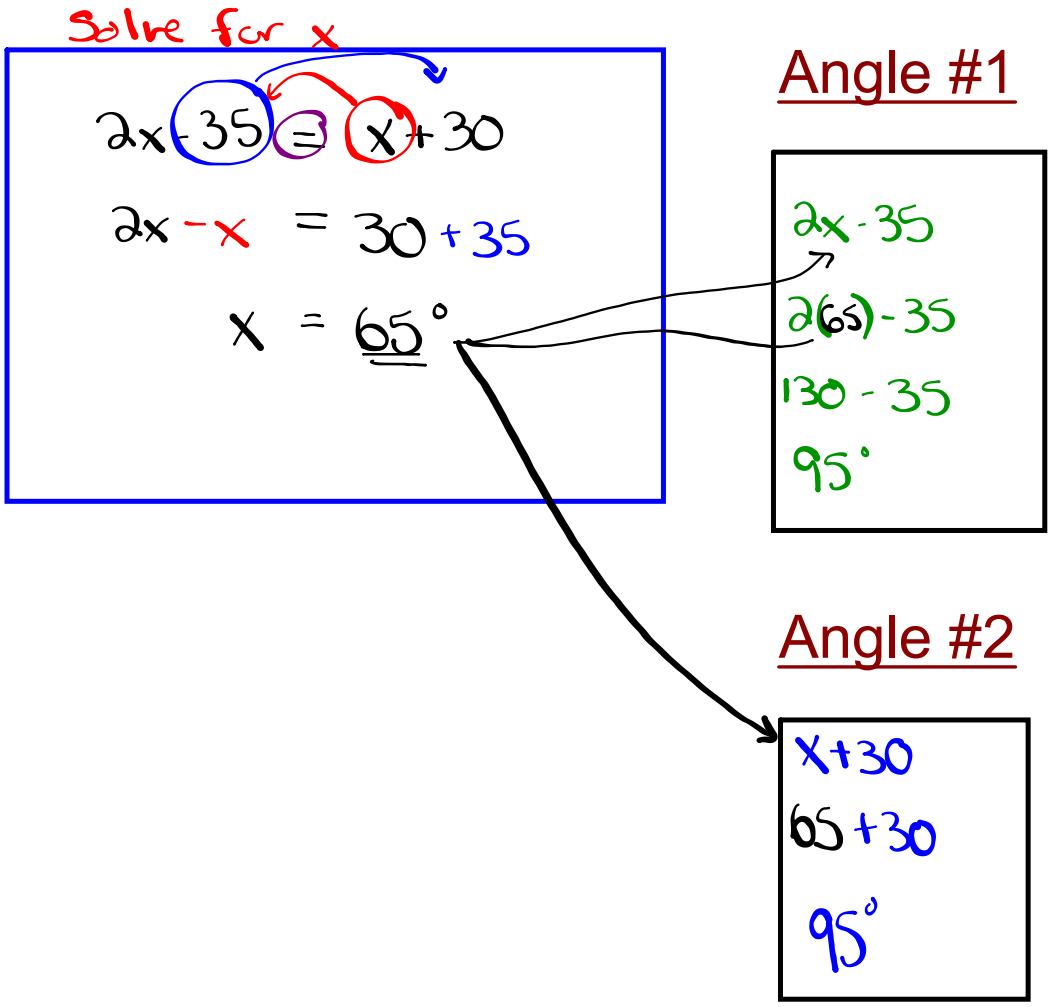
1. Solve for x and the indicated angles

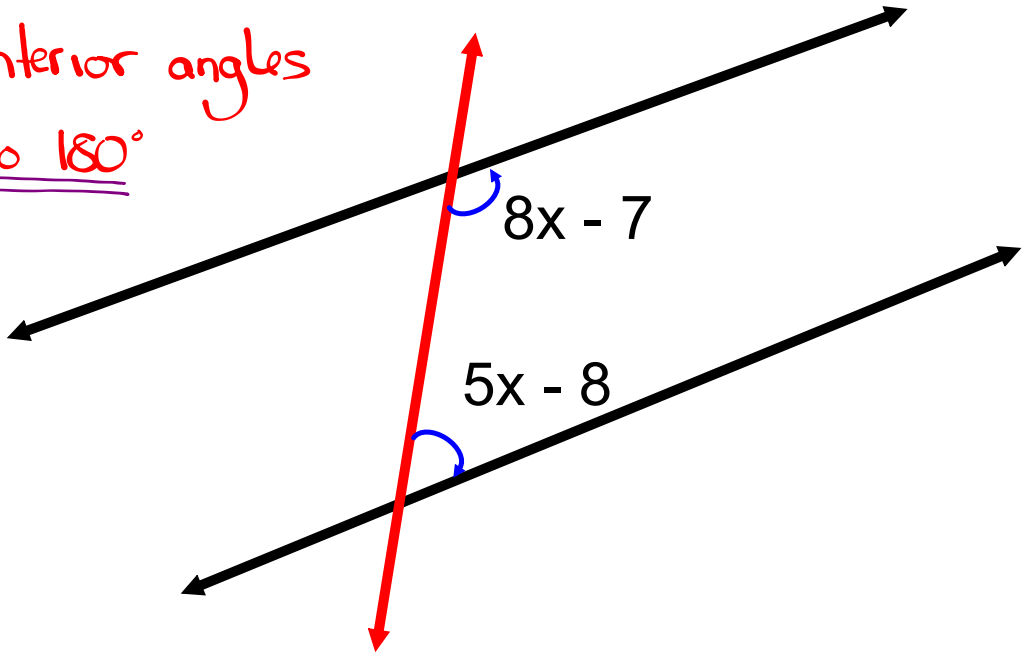
corresponding angles are equal




Solve for x
2x - 35 = x + 30
2x - x = 30 + 35
x = 65°
Angle #1
2x - 35
2(65) - 35
130 - 35
95°
Angle #2
x + 30
65 + 30
95°

2. Solve for x and the indicated angles

Co-Interior angles add to 180°



$8x - 7 + 5x - 8 = 180°$

$13x - 15 = 180°$

$13x = 180° + 15°$

$\frac{13x}{13} = \frac{195°}{13}$

$x = 15°$

Angle #1

$8x - 7$

$8(15) - 7$

$120 - 7$

$113°$

Angle #2

$5x - 8$

$5(15) - 8$

$75 - 8$

$67°$

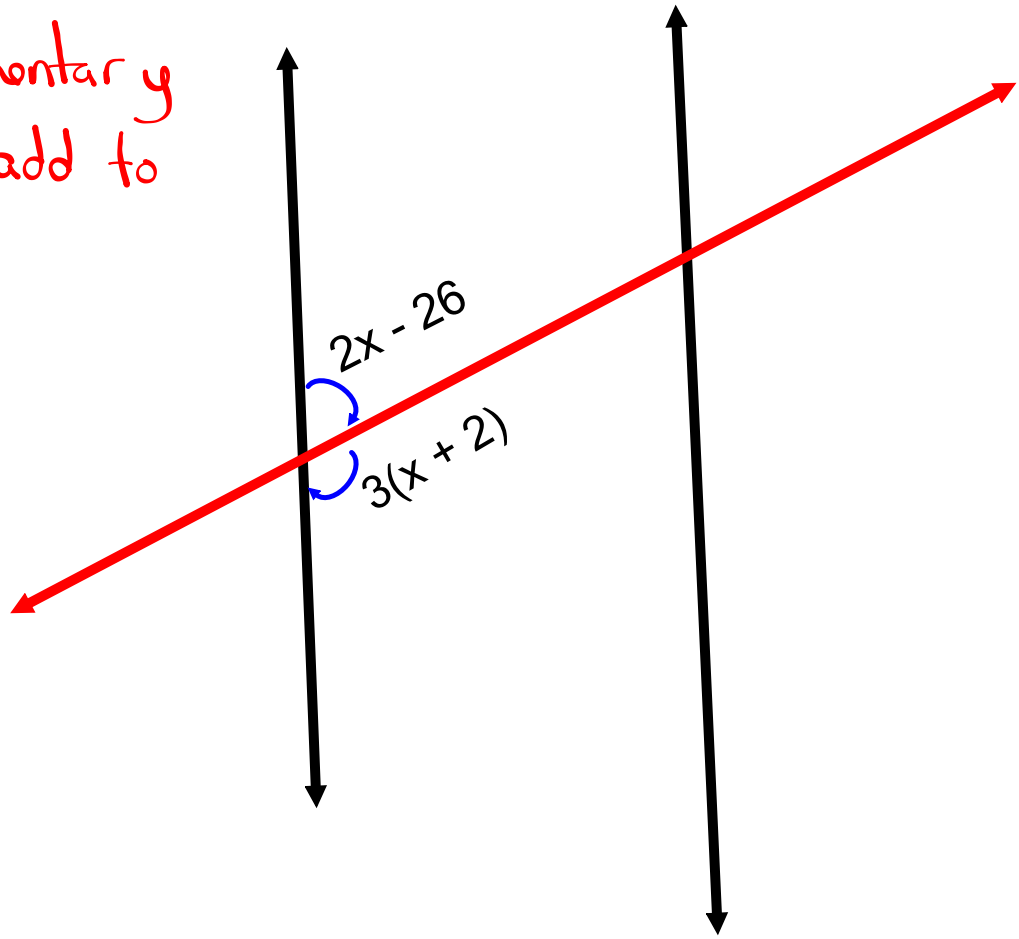
$113 + 67 = 180^0$

* Angle #2

$180 - 113 = 67°$

3. Solve for x and the indicated angles

supplementary angles add to 180°



$$2x - 26 + 3(x + 2) = 180$$

$$2x - 26 + 3x + 6 = 180$$

$$5x - 20 = 180$$

$$5x = 180 + 20$$

$$\frac{5x}{5} = \frac{200}{5}$$

$$x = 40°$$

Angle #1	Angle #2
2x - 26	3(x + 2)
2(40) - 26	3(40 + 2)
80 - 26	3(42)
= 54	=126

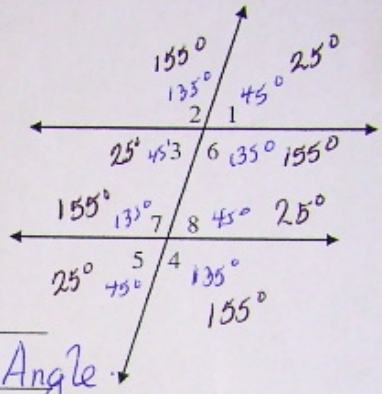
54 + 126 =180

Homework

Finish worksheet

Parallel lines Cut by a Transversal Name Answer Key

Assume all lines that look parallel are parallel.



Name the angle pairs.

1. **Angles 2 and 4 are** Alt Ext.
2. **Angles 7 and 4 are** Vertical Opp. Angle.
3. **Angles 1 and 2 are** Supplementary.
4. **Angles 6 and 7 are** Alt Int.
5. **Angles 6 and 8 are** Co-Int.
6. **Angles 6 and 4 are** Corresponding.
7. **If angle 4 = 135, find**

Angle 1 45° **Angle 2** 135° **Angle 3** 45°

Angle 5 45° **Angle 6** 135° **Angle 7** 135°

Angle 8 45°

5. Angles 6 and 8 are Co Int

6. Angles 6 and 4 are Corresponding

7. If angle 4 = 135, find

Angle 1 45° Angle 2 135° Angle 3 45°

Angle 5 45° Angle 6 135° Angle 7 135°

Angle 8 45°

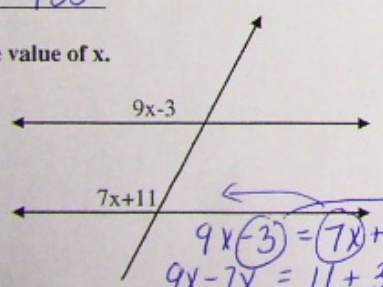
8. If angle 8 = 25, find

Angle 1 25° Angle 2 155° Angle 3 25°

Angle 4 155° Angle 5 25° Angle 6 155°

Angle 7 155°

9. Find the value of x.

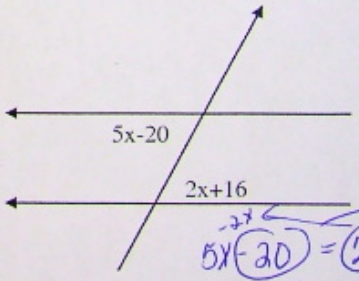


$9x - 3 = 7x + 11$

$9x - 7x = 11 + 3$

$\frac{2x}{2} = \frac{14}{2}$ $x = 7^\circ$

10.

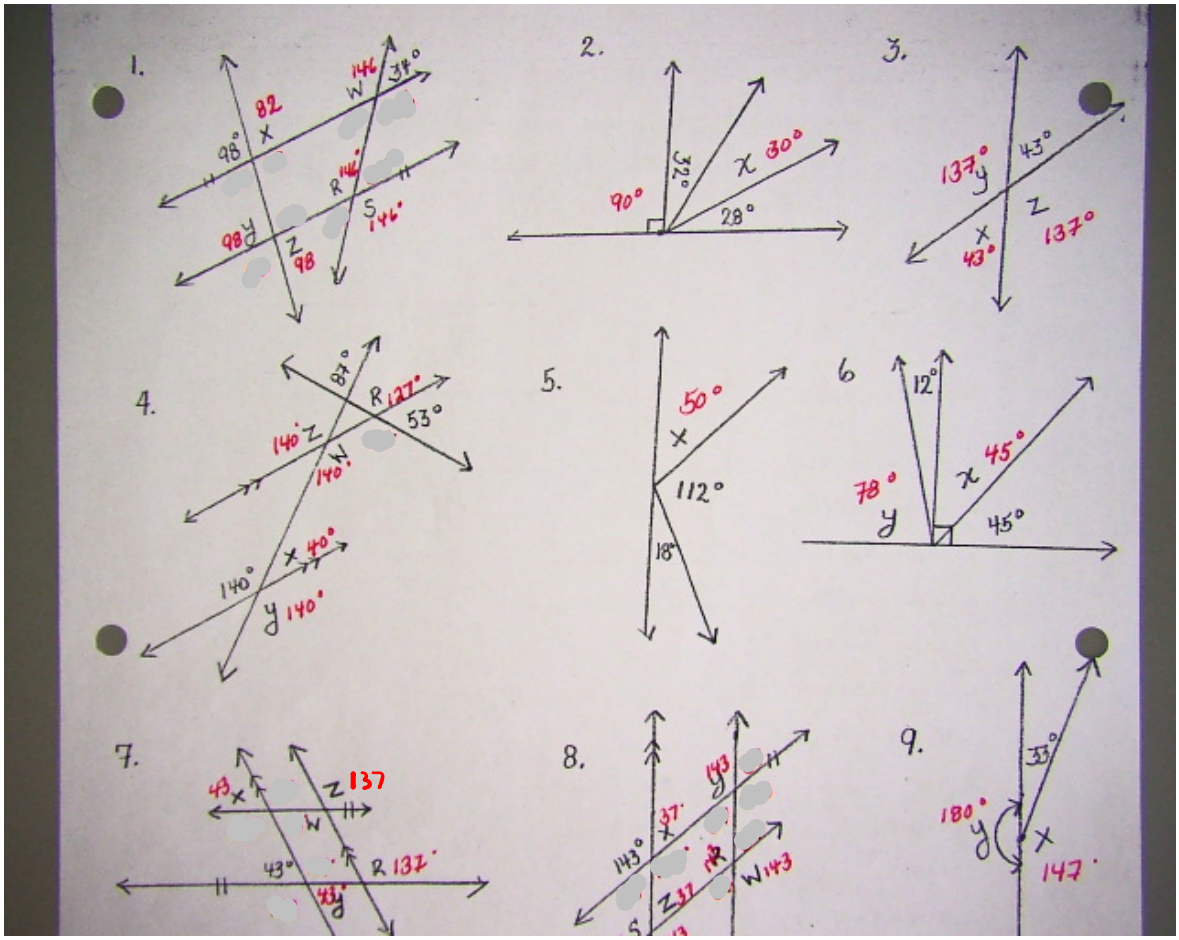


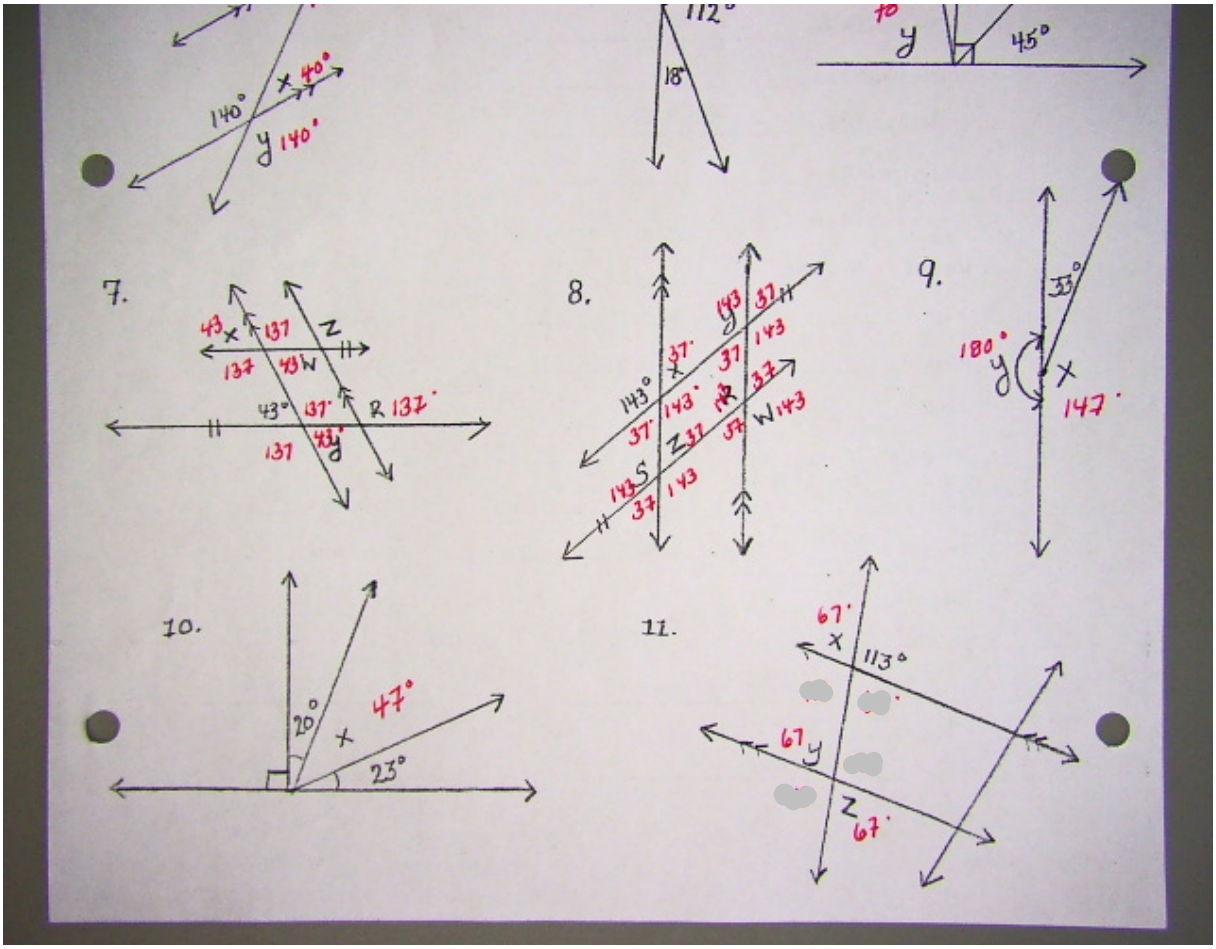
$-2x$

$5x - 20 = 2x + 16$

$5x - 2x = 16 + 20$

$\frac{3x}{3} = \frac{36}{3}$ $x = 12^\circ$


1.
2.
3.
4.
5.
6
7.
8.
9.


140°
x 40°
y 140°
112°
18°
y
45°
7.
43 x
137
Z
137
43 W
43°
137°
R 137°
137
43 y
8.
143
37
y
37
143
143°
37°
x
37
143°
37
R
37
37
Z 37
W 143
143 S
37
143
9.
33°
180°
y
x
147°
10.
20°
x
47°
23°
11.
67°
x
113°
67
y
Z
67°