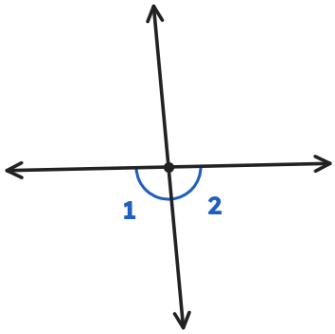
Name: _____ Date: _____

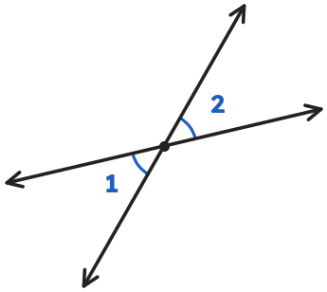
Vertical Complementary Supplementary Angles - Medium

Use the diagram and the angle relationship to write an equation. Solve for x, then find the measures of angles 1 and 2.

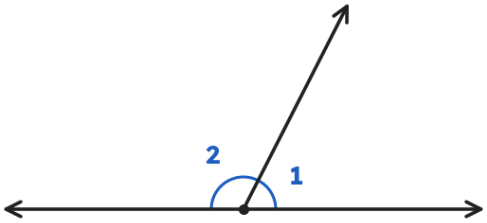
1. The two lines intersect. Angle 1 = (3x + 58)° and angle 2 = (7x + 2)°.



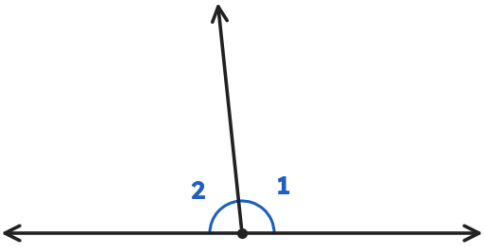
2. The two lines intersect. Angle 1 = (2x + 33)° and angle 2 = (4x + 19)°.



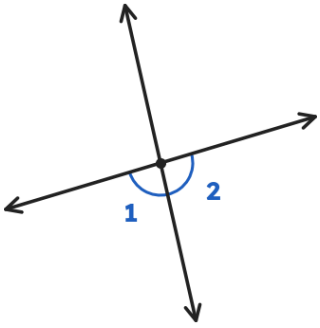
3. Angles 1 and 2 form a linear pair. Angle 1 = (9x - 45)° and angle 2 = (7x + 33)°.



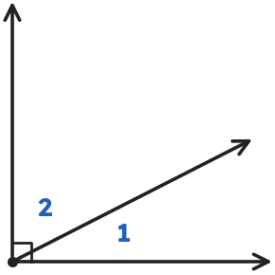
4. Angles 1 and 2 form a linear pair. Angle 1 = (7x - 37)° and angle 2 = (5x - 11)°.



5. The two lines intersect. Angle 1 = (4x + 46)° and angle 2 = (7x + 24)°.



6. Angles 1 and 2 form a right angle. Angle 1 = (x + 23)° and angle 2 = (3x + 51)°.

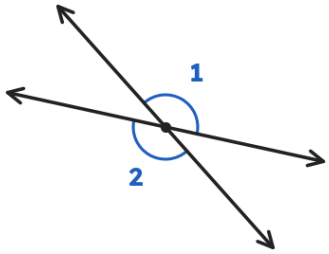


Name: _____ Date: _____

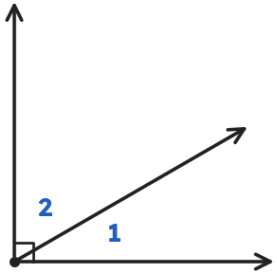
Vertical Complementary Supplementary Angles - Medium

Use the diagram and the angle relationship to write an equation. Solve for x, then find the measures of angles 1 and 2.

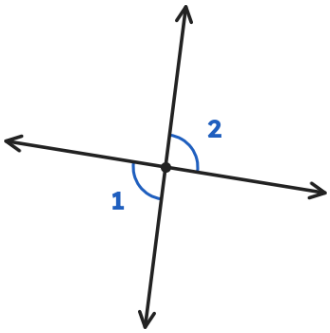
7. The two lines intersect. Angle 1 = (7x - 24)° and angle 2 = (4x + 48)°.



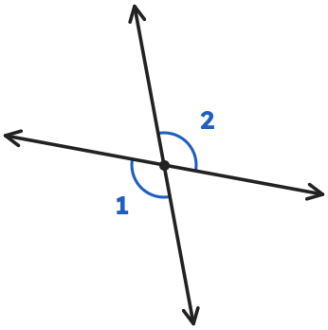
8. Angles 1 and 2 form a right angle. Angle 1 = (2x - 8)° and angle 2 = (5x - 35)°.



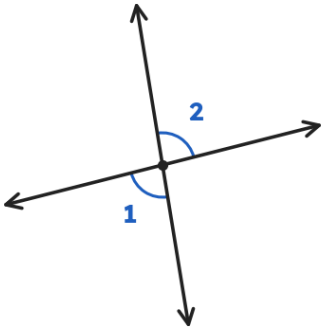
9. The two lines intersect. Angle 1 = (7x + 29)° and angle 2 = (5x + 47)°.



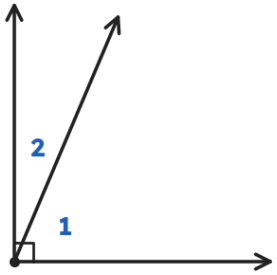
10. The two lines intersect. Angle 1 = (6x + 9)° and angle 2 = (3x + 60)°.



11. The two lines intersect. Angle 1 = (9x + 13)° and angle 2 = (7x + 29)°.

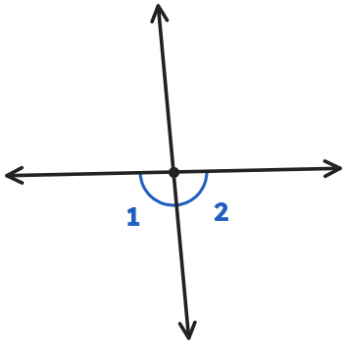


12. Angles 1 and 2 form a right angle. Angle 1 = (3x + 4)° and angle 2 = (x + 2)°.



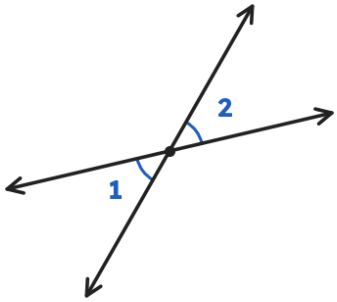
Vertical Complementary Supplementary Angles - Medium - Answer Key

1. The two lines intersect. Angle 1 = (3x + 58)° and angle 2 = (7x + 2)°.



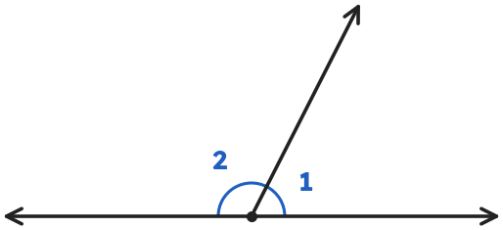
x = 12; angle 1 = 94°, angle 2 = 86°

2. The two lines intersect. Angle 1 = (2x + 33)° and angle 2 = (4x + 19)°.



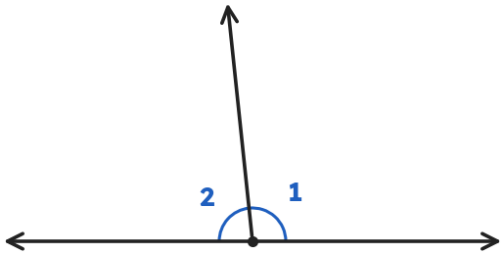
x = 7; each angle is 47°

3. Angles 1 and 2 form a linear pair. Angle 1 = (9x - 45)° and angle 2 = (7x + 33)°.



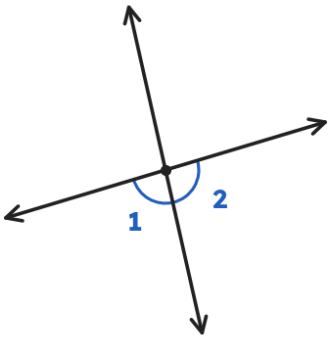
x = 12; angle 1 = 63°, angle 2 = 117°

4. Angles 1 and 2 form a linear pair. Angle 1 = (7x - 37)° and angle 2 = (5x - 11)°.



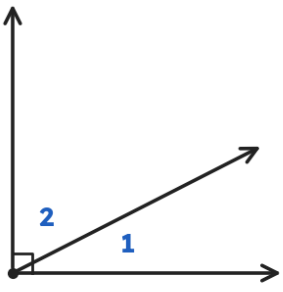
x = 19; angle 1 = 96°, angle 2 = 84°

5. The two lines intersect. Angle 1 = (4x + 46)° and angle 2 = (7x + 24)°.



x = 10; angle 1 = 86°, angle 2 = 94°

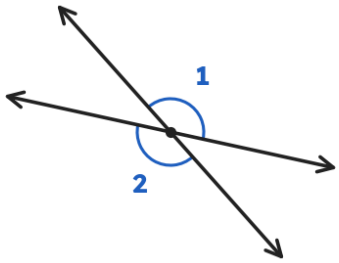
6. Angles 1 and 2 form a right angle. Angle 1 = (x + 23)° and angle 2 = (3x + 51)°.



x = 4; angle 1 = 27°, angle 2 = 63°

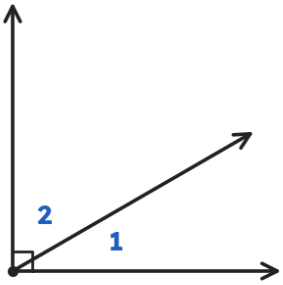
Vertical Complementary Supplementary Angles - Medium - Answer Key

7. The two lines intersect. Angle 1 = (7x - 24)° and angle 2 = (4x + 48)°.



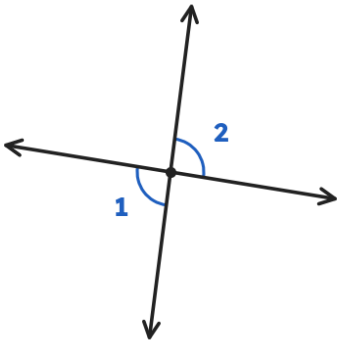
x = 24; each angle is 144°

8. Angles 1 and 2 form a right angle. Angle 1 = (2x - 8)° and angle 2 = (5x - 35)°.



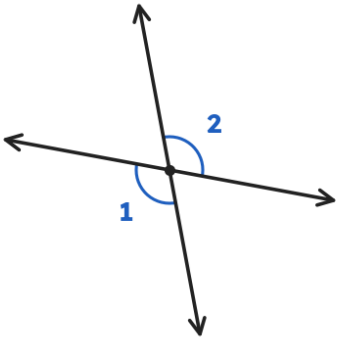
x = 19; angle 1 = 30°, angle 2 = 60°

9. The two lines intersect. Angle 1 = (7x + 29)° and angle 2 = (5x + 47)°.



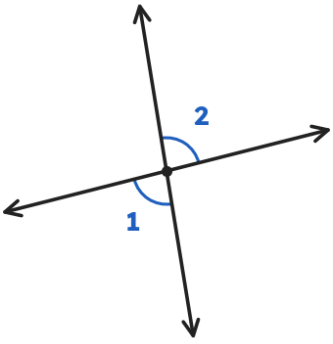
x = 9; each angle is 92°

10. The two lines intersect. Angle 1 = (6x + 9)° and angle 2 = (3x + 60)°.



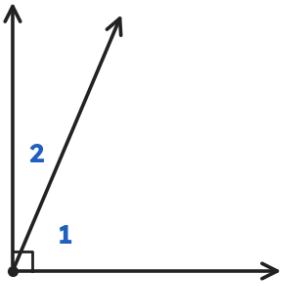
x = 17; each angle is 111°

11. The two lines intersect. Angle 1 = (9x + 13)° and angle 2 = (7x + 29)°.



x = 8; each angle is 85°

12. Angles 1 and 2 form a right angle. Angle 1 = (3x + 4)° and angle 2 = (x + 2)°.



x = 21; angle 1 = 67°, angle 2 = 23°