

Today we continued our study of angle properties adding complementary angles and vertical angles to our content knowledge. We took notes and then practice through a variety of activities. Tonight's homework is to complete pages 7 and 8 in the packet.

Warm-Up page 5

One of two supplementary angles is 46 degrees more than its supplement. Find the measure of both angles.

1st Angle: 67
2nd Angle: 113

$x + x + 46 = 180$
 $67 + 46$

13

Complementary Angles
Two angles that add up to 90°.

Equation:
 $x + 76 = 90$
 $x = 14$

Solve for x if the following 2 angles are complementary.

14

Solve for x.

$2x + 23 + x + 13 = 90$
 $3x + 36 = 90$
 $3x = 54$
 $x = 18$

complementary

15

One of two complementary angles is 16 degrees less than its complement. Find the measure of both angles.

1st Angle: 37°
2nd Angle: 53°

16

Vertical Angles
Two angles that share a common vertex and their sides form two pairs of opposite rays.

Solve for x.

Equation:
 $x = 76$

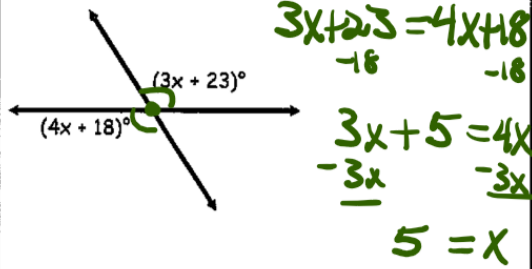
17

Solve for x.

$5(2x) = (40) \frac{5}{2}$
 $x = 100$

18

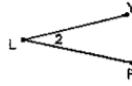
Solve for x.



19

Recap:

Name the below angle 4 different ways.



Two angles that have a sum of 90 degrees are called _____.

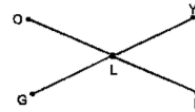
What does it mean if two angles are supplementary?

Name the angle relationship between the following angle pairs.

$\angle GLO$ and $\angle FLY$: _____

$\angle OLG$ and $\angle FLG$: _____

What is $m\angle OLG + m\angle FLG =$ _____?



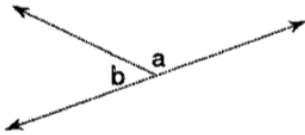
20

Students are to complete the next two pages for homework. (Pages 7 and 8 from their packets.)

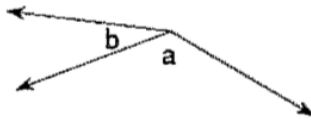
Name: _____ Date: _____

Name the angle relationship: linear pair, vertical angles, or adjacent.

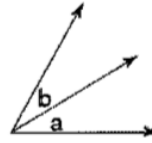
1.



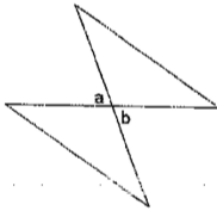
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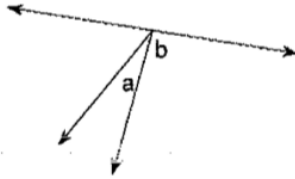
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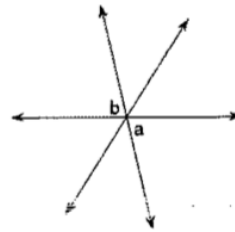
4.



5.



6.



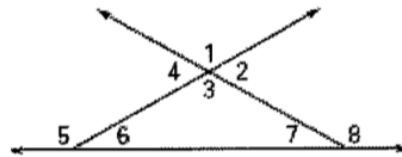
Use the diagram to tell whether the angles are vertical angles, a linear pair, or neither.

7. $\angle 1$ and $\angle 2$ _____ 8. $\angle 1$ and $\angle 3$ _____

9. $\angle 1$ and $\angle 4$ _____ 10. $\angle 1$ and $\angle 5$ _____

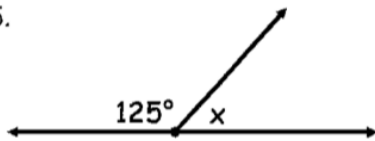
11. $\angle 1$ and $\angle 6$ _____ 12. $\angle 1$ and $\angle 7$ _____

13. $\angle 1$ and $\angle 8$ _____ 14. $\angle 2$ and $\angle 4$ _____



Solve for x.

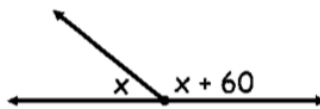
15.



$$125 + x = 180$$

$$x = 55$$

16.



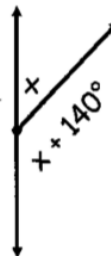
$$x + x + 60 = 180$$

$$2x + 60 = 180$$

$$2x = 120$$

$$x = 60$$

17.



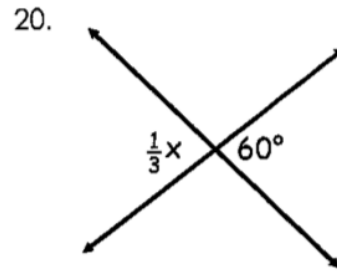
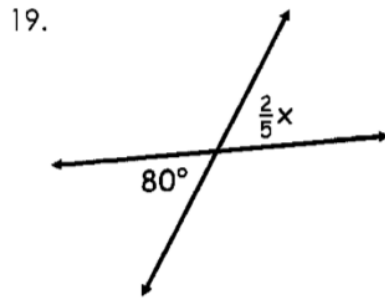
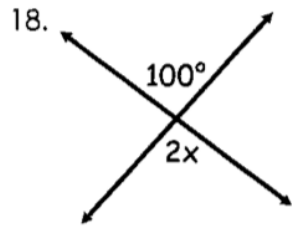
$$x + x + 140 = 180$$

$$2x + 140 = 180$$

$$2x = 40$$

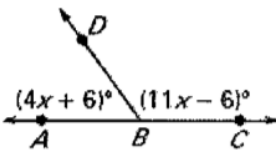
$$x = 20$$

Solve for x.

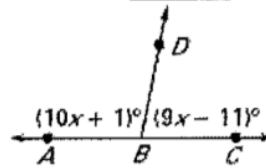


Use the diagram to find the indicated measure.

21. $x =$ _____
 $m\angle ABD =$ _____
 $m\angle DBC =$ _____



22. $x =$ _____
 $m\angle ABD =$ _____
 $m\angle DBC =$ _____



23. $x =$ _____
 $m\angle ABC =$ _____
 $m\angle DBE =$ _____

