

Geometry

Task Cards 7.G.5

20 Task Cards, Recording Sheet, Answer Sheet

7.G.5

Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.

5 Write and solve the equation for the following situation:

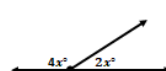
Angles 1 and 2 are supplementary. The measure of angle 1 is $3x^\circ$ and the measure of angle 2 is $2x^\circ$.

6 Write and solve the equation for the following situation:

Angles 1 and 2 are complementary. The measure of angle 1 is 16° larger than the measure of angle 2.

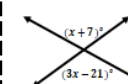
7.G.5

9 Write an solve an equation to determine the unknown variable. Then find the measure of the unknown angles.



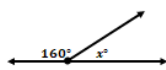
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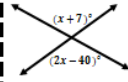
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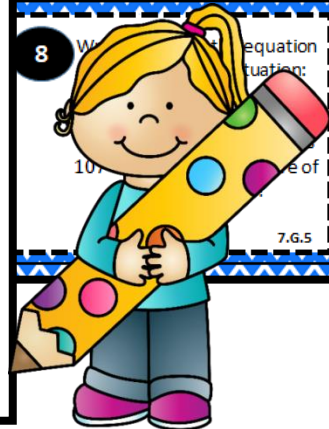


7.G.5

12 Write an solve an equation to determine the unknown variable. Then find the measure of the unknown angles.



7.G.5



Created by:
Math in the Midwest

7.G.5

Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.

1

Angles that sum
to 180° are called

_____.

7.G.5

2

Angles that sum
to 90° are called

_____.

7.G.5

3

_____ angles are
opposite angles
made by two
intersecting lines.

7.G.5

4

_____ angles have a
common vertex
and side

7.G.5

5

Write and solve the equation for the following situation:

Angles 1 and 2 are supplementary. The measure of angle 1 is 34° larger than the measure of angle 2.

7.G.5

6

Write and solve the equation for the following situation:

Angles 1 and 2 are complementary. The measure of angle 1 is 16° larger than the measure of angle 2.

7.G.5

7

Write and solve the equation for the following situation:

The complement of an angle is 31° more than the measure of the angle itself.

7.G.5

8

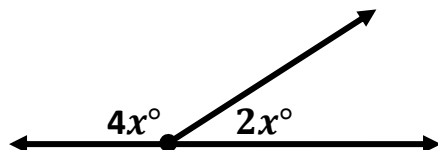
Write and solve the equation for the following situation:

Two angles are supplementary. One angle is 107° . What is the measure of the other angle?

7.G.5

9

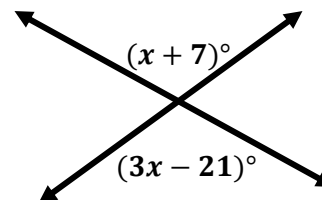
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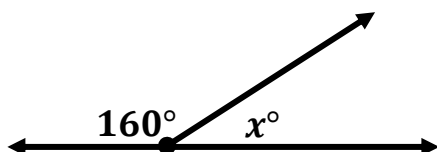
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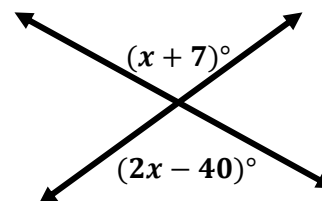
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7.G.5

12

Write an solve an equation to determine the unknown variable. Then find the measure of the unknown angles.



7.G.5

13

What angle is
supplementary
to 67° ?

7.G.5

14

What angle is
complementary
to 67° ?

7.G.5

15

Write an
equation for two
angles a and b
that are
complementary.

7.G.5

16

Write an
equation for two
angles a and b
that are
supplementary.

7.G.5

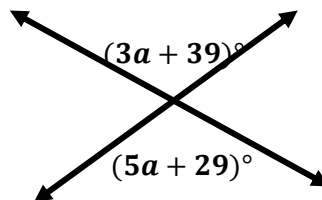
17

Write an equation for two angles a and b that are vertical angles.

7.G.5

18

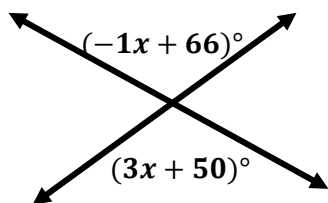
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7.G.5

19

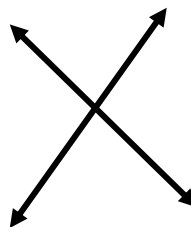
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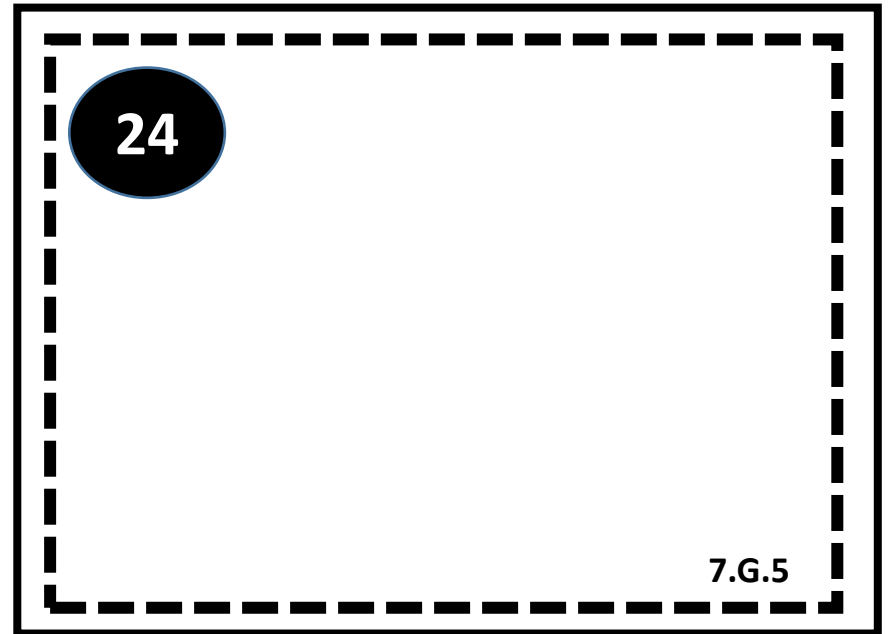
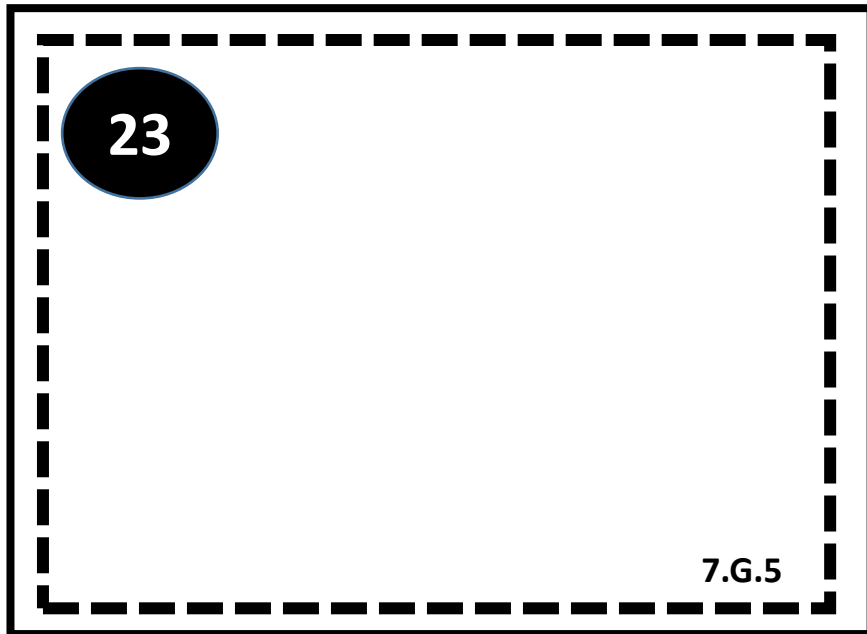
7.G.5

20

True or False
If you know at least one angle on the diagram below you can find the other three.



7.G.5



1

Angles that sum
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7.G.5

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to 90° are called

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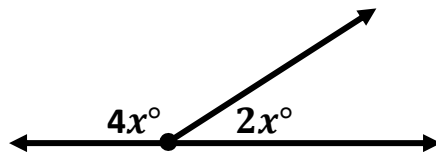
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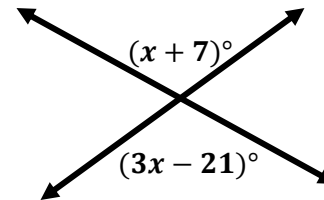
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7.G.5

10

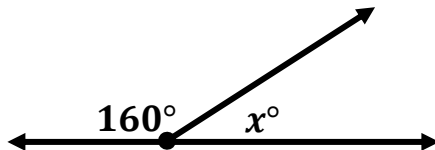
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7.G.5

11

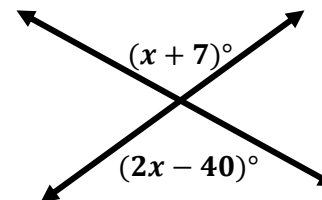
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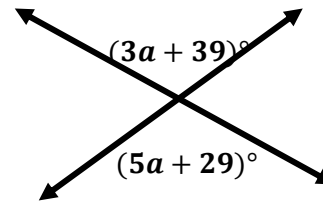
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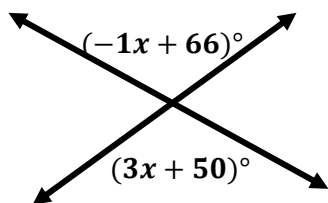
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7.G.5

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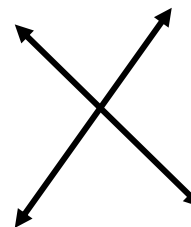
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7.G.5

20

True or False
If you know at least one angle on the diagram below you can find the other three.



7.G.5

21

7.G.5

22

7.G.5

23

7.G.5

24

7.G.5

Name _____

Hour _____

7.G.5 Recording Sheet

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

Name _____

Hour _____

10.

11.

12.

13.

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19.

20.

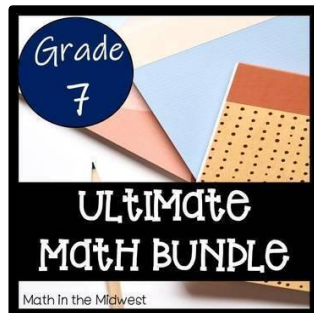
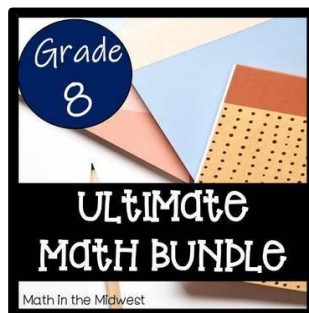
Answer Key

| Number | Answer |
|--------|--|
| 1 | Supplementary |
| 2 | Complementary |
| 3 | Vertical |
| 4 | Adjacent |
| 5 | $x + (x + 34) = 180$ $x = 73$ |
| 6 | $x + (x + 16) = 90$ $x = 37$ |
| 7 | $x + (x + 31) = 90$ $x = 29.5$ |
| 8 | $x + 107 = 180$ $x = 73$ |
| 9 | $4x + 2x = 180$ $x = 30$ $120^\circ \text{ and } 60^\circ$ |
| 10 | $x + 7 = 3x - 21$ $x = 14$ $21^\circ \text{ and } 159^\circ$ |

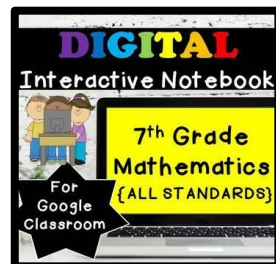
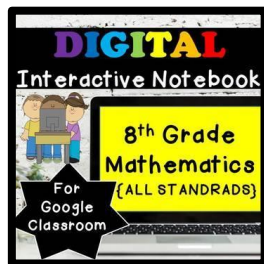
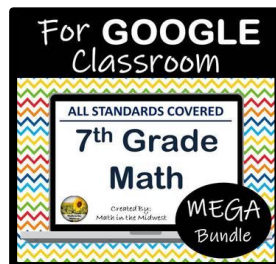
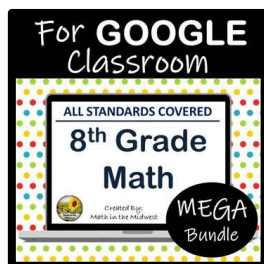
| Number | Answer |
|--------|--|
| 11 | $x + 160 = 180$ $x = 20$ |
| 12 | $x + 7 = 2x - 40$ $x = 47$ $54^\circ \text{ and } 126^\circ$ |
| 13 | 113° |
| 14 | 23° |
| 15 | $a + b = 90$ |
| 16 | $a + b = 180$ |
| 17 | $a = b$ |
| 18 | $3a + 39 = 5a + 29$ $a = 5$ $54^\circ \text{ and } 126^\circ$ |
| 19 | $-1x + 66 = 3x + 50$ $x = 4$ $62^\circ \text{ and } 118^\circ$ |
| 20 | True |

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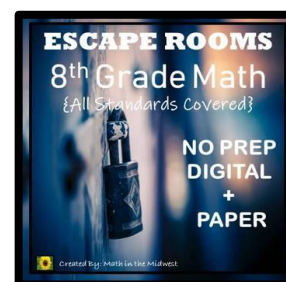
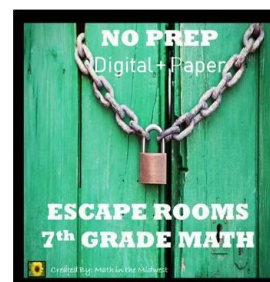


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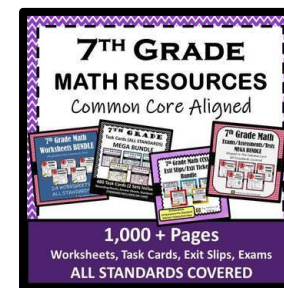
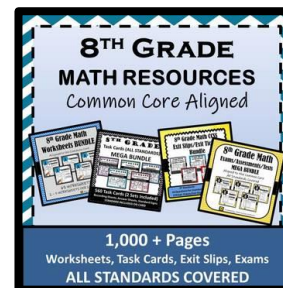


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