



THIRD SPACE  
LEARNING

# Corresponding Angles Worksheet

Geometry

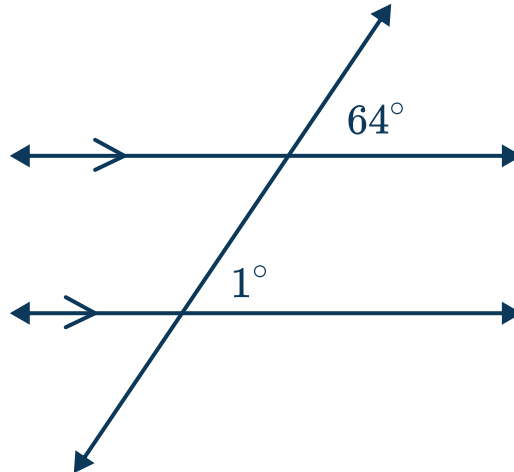
Grades 9 to 12

## Skill Questions

Name: .....

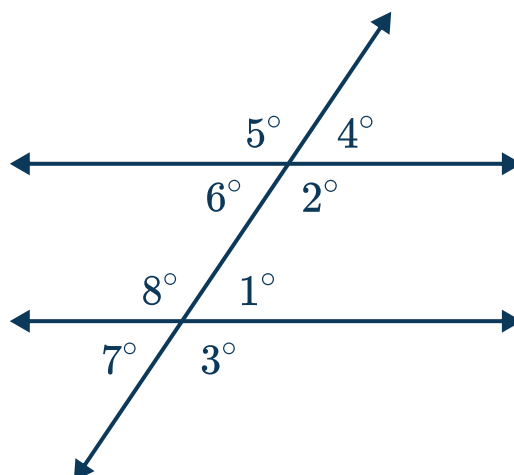
Date: .....

- 1 Find the angle 1.



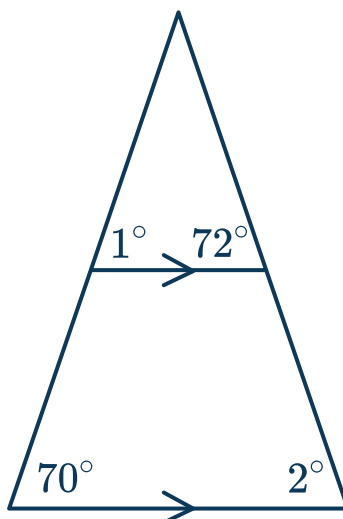
Answer

- 2 Name two pairs of corresponding angles.



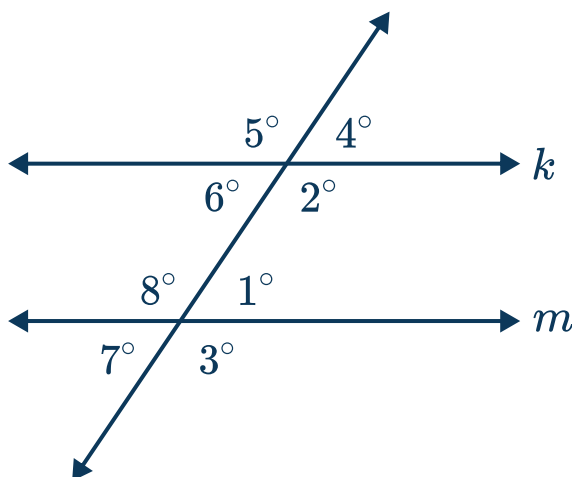
Answer

- 3 Find angle 1 and angle 2.



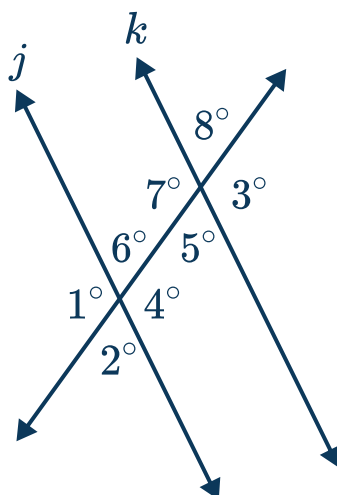
Answer

- 4 If line  $k$  is parallel to line  $m$  and angle 5 =  $123^\circ$ , find angle 8 and angle 1.



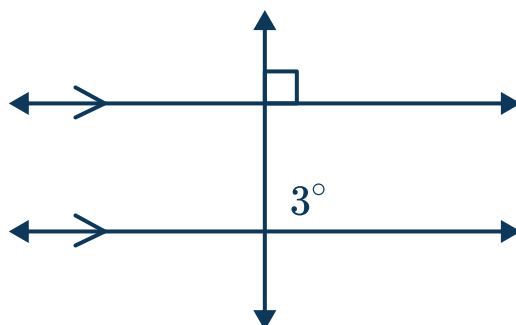
Answer

- 5 Line  $j$  is parallel to line  $k$ , if angle 4 =  $117^\circ$ , find the measure of angle 3 and angle 7.



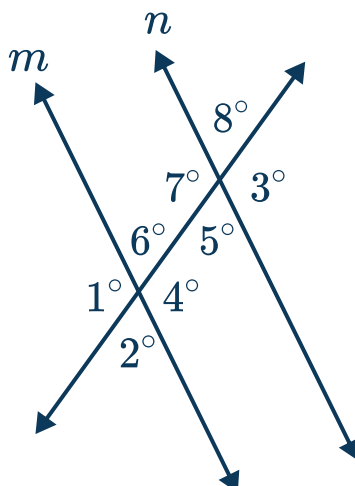
Answer

6 Find angle 3



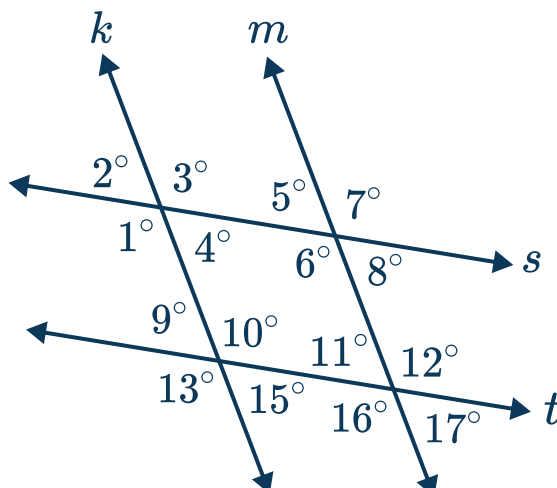
Answer

7 Line  $m$  is parallel to line  $n$  and angle 4 is  $123^\circ$ , find the measure of angle 3, angle 1 and angle 8.



Answer

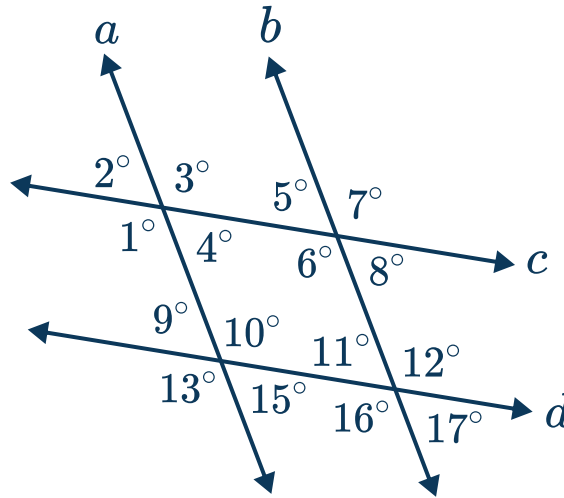
8 In the figure, line  $k$  is parallel to line  $m$  and line  $s$  is parallel to line  $t$ . If angle 3 is  $119^\circ$  find the measure of angle 7 and angle 10.



Answer

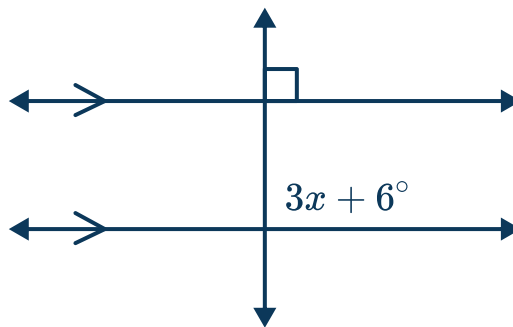
## Corresponding Angles Worksheet | Grades 9 to 12

- 9 In the figure below, line  $k$  and line  $m$  are parallel and line  $s$  and line  $t$  are parallel. If angle 17 is  $47^\circ$ , find the measure of angle 8 and angle 1.



Answer

- 10 Find the value of  $x$ .



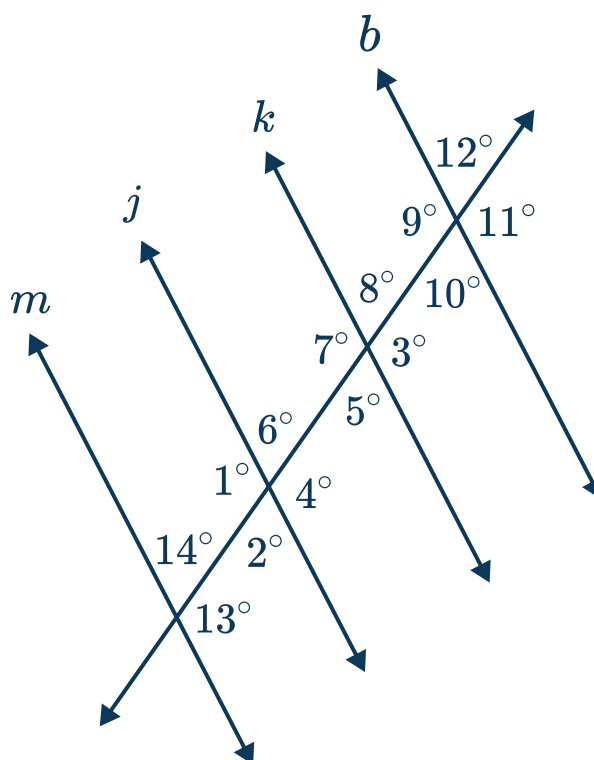
Answer

## Applied Questions

- 11** Two parallel lines and a transversal form corresponding angles, angle A and angle B. If angle A is represented by  $5x - 10$  and angle B is represented by  $2x + 11$ , find the measure of angle A and angle B.

Answer

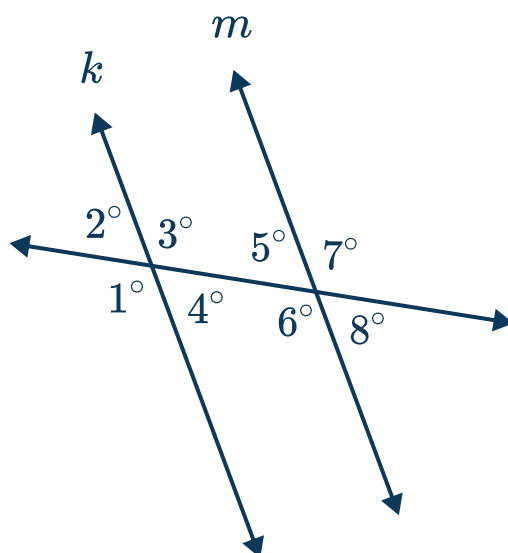
- 12** Lines  $m, j, k, b$  are parallel and angle 12 =  $42^\circ$   
Find angle 2, angle 5, angle 6 and angle 14.



Answer

- 13 In the figure below, line  $k$  and line  $m$  are parallel. Hillary says that angle 2 and angle 7 are equal because they are corresponding angles.

Is she correct?



Answer

## Corresponding Angles Worksheet | Grades 9 to 12

- 14** In the figure below, lines  $w$ ,  $u$  and  $q$  are parallel, angle 3 is  $88^\circ$  and angle 2 is  $52^\circ$ ,

A) Find the measure of angle 11

Answer

B) Find the measure of angle 19

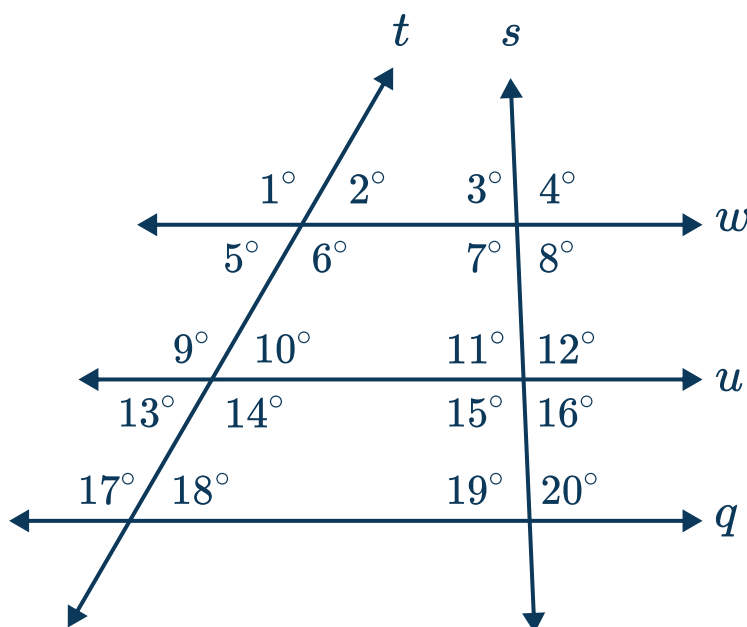
Answer

C) Find the measure of angle 18

Answer

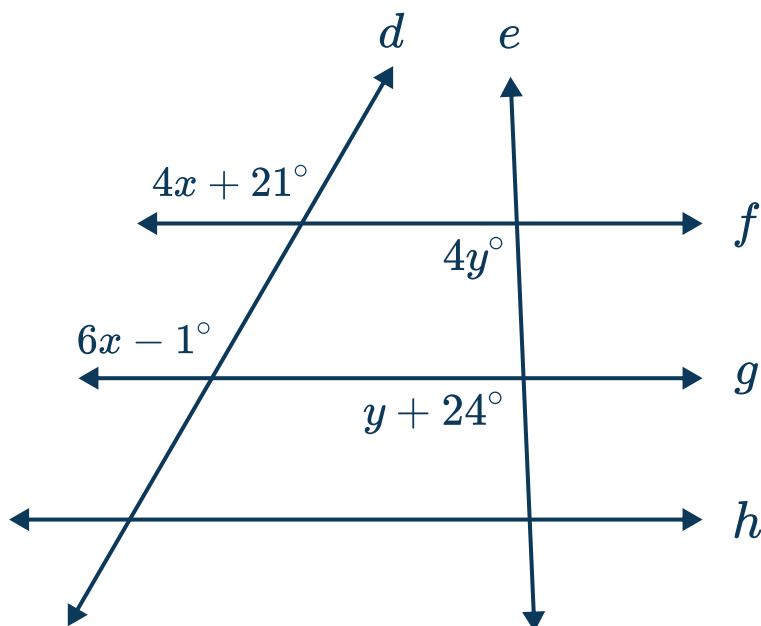
D) Find the measure of angle 17

Answer



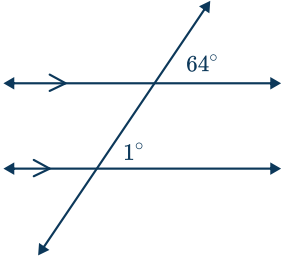
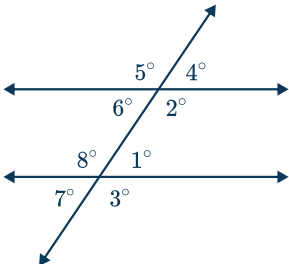
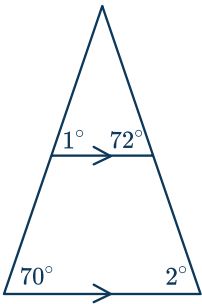
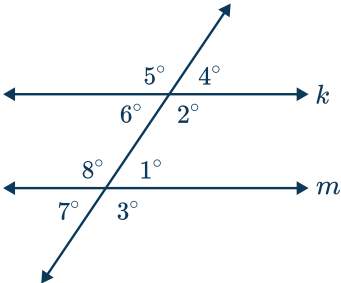


- 15 In the figure below, lines  $f$ ,  $g$ , and  $h$  are all parallel. Find the value of  $x$  and  $y$ .

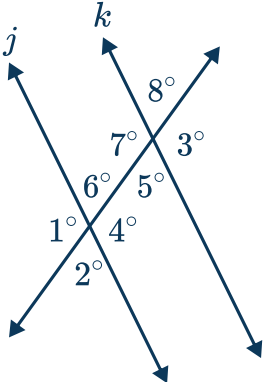
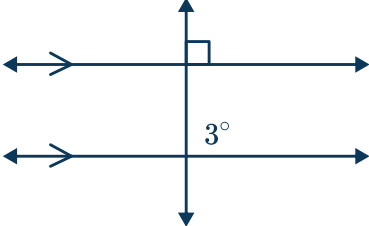
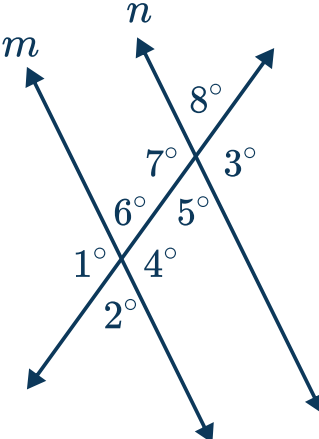


Answer

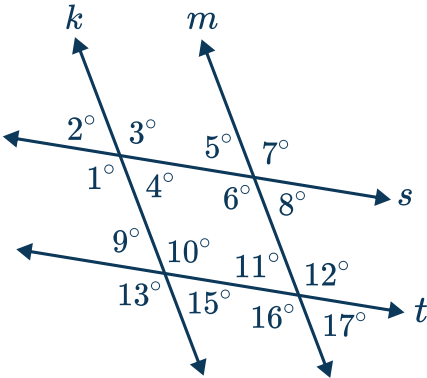
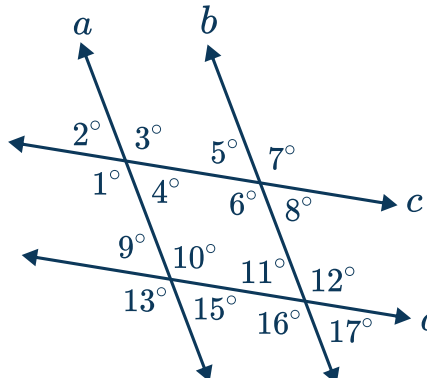
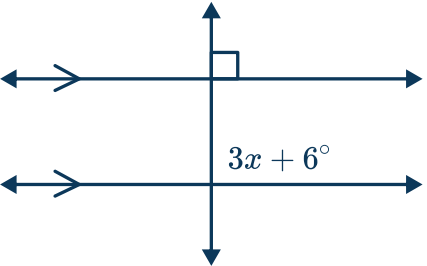
## Answers

Question number	Question	Answers	Standard
1	Find the angle 1. 	Angle 1 = $64^\circ$	8.G.A.5 HSG.CO.C.9
2	Name two pairs of corresponding angles. 	Possible answers:  $\angle 1$ and $\angle 4$ $\angle 2$ and $\angle 3$ $\angle 5$ and $\angle 8$ $\angle 6$ and $\angle 7$	8.G.A.5 HSG.CO.C.9
3	Find angle 1 and angle 2. 	Angle 1 = $70^\circ$  Angle 2 = $72^\circ$	8.G.A.5 HSG.CO.C.9
4	If line $k$ is parallel to line $m$ and angle 5 = $123^\circ$ , find angle 8 and angle 1. 	Angle 8 = $123^\circ$ Angle 1 = $57^\circ$	8.G.A.5 HSG.CO.C.9

# Corresponding Angles Worksheet | Grades 9 to 12 | Answers

Question number	Question	Answers	Standard
5	<p>Line <math>j</math> is parallel to line <math>k</math>, if angle 4 = <math>117^\circ</math>, find the measure of angle 3 and angle 7.</p> 	<p>Angle 3 = <math>117^\circ</math> Angle 7 = <math>117^\circ</math></p>	8.G.A.5 HSG.CO. C.9
6	<p>Find angle 3</p> 	Angle 3 = $90^\circ$	8.G.A.5 HSG.CO. C.9
7	<p>Line <math>m</math> is parallel to line <math>n</math> and angle 4 is 123, find the measure of angle 3, angle 1 and angle 8.</p> 	<p>Angle 3 = <math>123^\circ</math> Angle 1 = <math>123^\circ</math> Angle 8 = <math>57^\circ</math></p>	8.G.A.5 HSG.CO. C.9

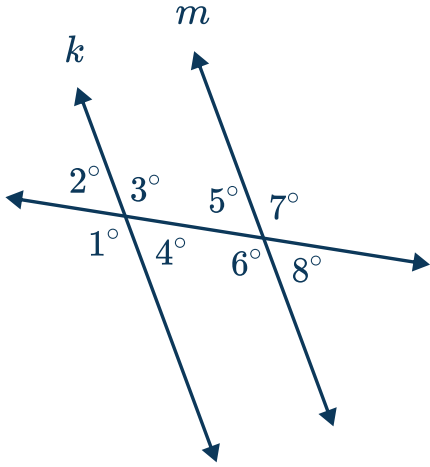
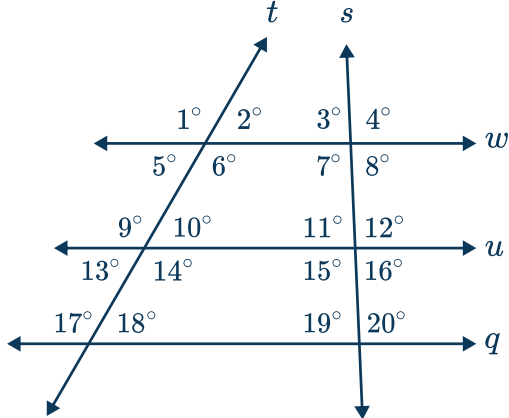
# Corresponding Angles Worksheet | Grades 9 to 12 | Answers

Question number	Question	Answers	Standard
8	<p>In the figure, line <math>k</math> is parallel to line <math>m</math> and line <math>s</math> is parallel to line <math>t</math>. If angle 3 is 119 find the measure of angle 7 and angle 10.</p> 	<p>Angle 7 = <math>119^\circ</math>            Angle 10 = <math>119^\circ</math></p>	8.G.A.5 HSG.CO.C.9
9	<p>In the figure below, line <math>k</math> and line <math>m</math> are parallel and line <math>s</math> and line <math>t</math> are parallel. If angle 17 is 47, find the measure of angle 8 and angle 1.</p> 	<p>Angle 15 = <math>47^\circ</math>            Angle 8 = <math>47^\circ</math>            Angle 1 = <math>133^\circ</math></p>	8.G.A.5 HSG.CO.C.9
10	<p>Find the value of <math>x</math>.</p> 	<p><math>3x + 6 = 90</math>  <math>3x = 84</math>  <math>x = 28</math></p>	8.G.A.5 HSG.CO.C.9

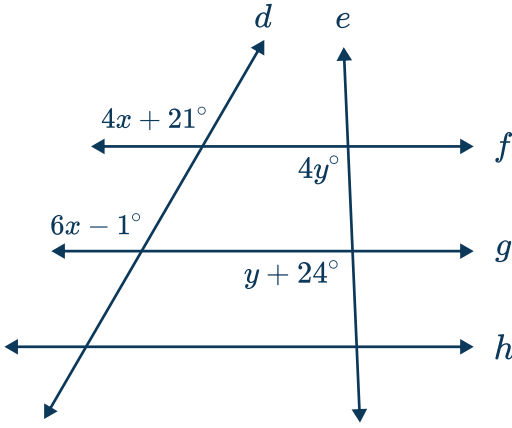
## Corresponding Angles Worksheet | Grades 9 to 12 | Answers

Question number	Question	Answers	Standard
11	Two parallel lines and a transversal form corresponding angles, angle A and angle B. If angle A is represented by $5x - 10$ and angle B is represented by $2x + 11$ , find the measure of angle A and angle B.	$2x + 11 = 5x - 10$ $21 = 3x$ $7 = x$  Angle A = $5(7) - 10 = 35 - 10 = 25$ Angle B = $2(7) + 11 = 14 + 11 = 25$ Angle A and B are both $25^\circ$	8.G.A.5 HSG.CO.C.9
12	Lines $m, j, k, b$ are parallel and angle $12 = 42^\circ$ Find angle 2, angle 5, angle 6 and angle 14.	Angle 2 = $42^\circ$  Angle 5 = $42^\circ$  Angle 6 = $42^\circ$  Angle 14 = $42^\circ$	8.G.A.5 HSG.CO.C.9

# Corresponding Angles Worksheet | Grades 9 to 12 | Answers

Question number	Question	Answers	Standard
13	<p>In the figure below, line <math>k</math> and line <math>m</math> are parallel. Hillary says that angle 2 and angle 7 are equal because they are corresponding angles.</p> <p>Is she correct?</p> 	<p>Hillary is not correct. Angle 2 and angle 7 are not equal and they are not corresponding angles. In order for two angles to be corresponding angles, they both have to be on the same side of the transversal and one angle is in between the parallel lines (interior) and the other is not (exterior). In this case, angle 5 is a corresponding angle to angle 2 and is also equal to angle 2 because the lines are parallel.</p>	8.G.A.5 HSG.CO.C.9
14	<p>In the figure below, lines <math>w</math>, <math>u</math> and <math>q</math> are parallel, angle 3 is <math>88^\circ</math> and angle 2 is <math>52^\circ</math>,</p> <p>A) Find the measure of angle 11 B) Find the measure of angle 19 C) Find the measure of angle 18 D) Find the measure of angle 17</p> 	<p>A) Angle 11 = <math>88^\circ</math> B) Angle 19 = <math>88^\circ</math> C) Angle 18 = <math>52^\circ</math> D) Angle 17 = <math>128^\circ</math></p>	8.G.A.5 HSG.CO.C.9

# Corresponding Angles Worksheet | Grades 9 to 12 | Answers




Question number	Question	Answers	Standard
15	<p>In the figure below, lines <math>f</math>, <math>g</math>, and <math>h</math> are all parallel. Find the value of <math>x</math> and <math>y</math>.</p> 	$4x + 21 = 6x - 1$ $22 = 2x$ $11 = x$ $4y = y + 24$ $3y = 24$ $y = 8$	8.G.A.5 HSG.CO.C.9

## Do you have a group of students who need a boost in math?

Each student could receive a personalized lesson every week from our specialist one-on-one math tutors.

- ✓ Differentiated instruction for each student
- ✓ Aligned to your state's standard
- ✓ Scaffolded learning to close gaps

## Speak to us

-  [thirdspacelearning.com/us/](https://thirdspacelearning.com/us/)
-  (929) 298-4593
-  [hello@thirdspacelearning.com](mailto:hello@thirdspacelearning.com)



**THIRD SPACE**  
LEARNING