

3-5 SOL Questions on Angles

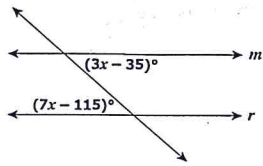
Name: _____

Time Start: _____ Finish: _____

Total Time = _____

1.

Lines m and r are cut by a transversal.

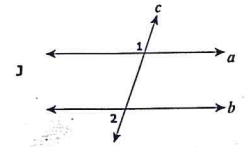
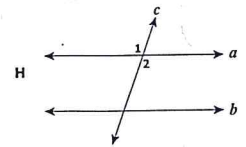
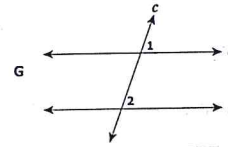
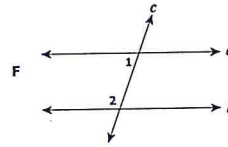


What value of x will show that line m is parallel to line r ?

- F 20
- G 24
- H 25
- J 33

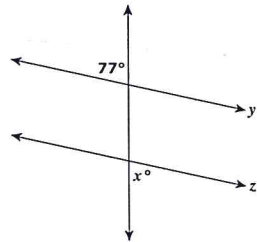
2.

In each of the following figures, transversal c cuts lines a and b . In which figure are $\angle 1$ and $\angle 2$ corresponding angles?



3.

Lines y and z are cut by a transversal.

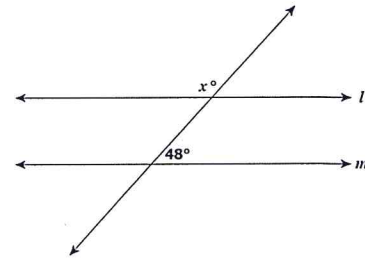


For what value of x is $y \parallel z$?

- A 13
- B 77
- C 103
- D 154

4.

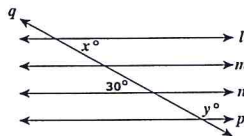
For what value of x is line l parallel to line m in this figure?



- F 42
- G 48
- H 132
- J 138

5.

In the figure shown, line q is a transversal of parallel lines l , m , n , and p .

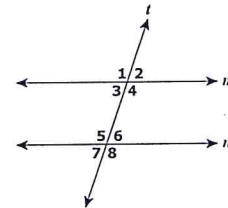


What are the values of x and y ?

- A $x = 30, y = 30$
- B $x = 30, y = 150$
- C $x = 150, y = 30$
- D $x = 150, y = 150$

6.

In this figure, line t is a transversal of lines m and n .

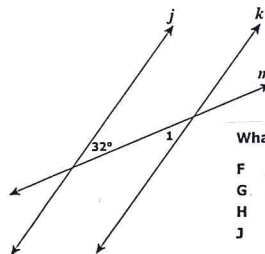


Which of the following statements determines that lines m and n are parallel?

- A $\angle 1 \cong \angle 4$
- B $\angle 2 \cong \angle 7$
- C $\angle 3$ and $\angle 5$ are complementary
- D $\angle 6$ and $\angle 8$ are supplementary

7.

In the figure shown, parallel lines j and k are cut by transversal m .

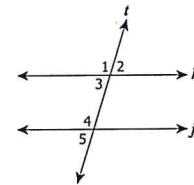


What is $m\angle 1$?

- F 32°
- G 58°
- H 122°
- J 148°

8.

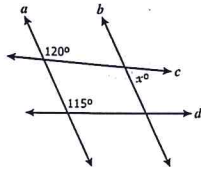
Transversal t intersects lines k and j as shown.



Which of the following relationships makes $j \parallel k$?

- A $\angle 2 \cong \angle 3$
- B $\angle 1 \cong \angle 3$
- C $\angle 4$ and $\angle 5$ are supplementary
- D $\angle 3$ and $\angle 4$ are supplementary

9.

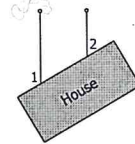


If lines a and b are parallel, what is the value of x ?

- A 120
- B 115
- C 65
- D 60

10.

Sally is using strings to mark parallel rows for a vegetable garden behind her house.

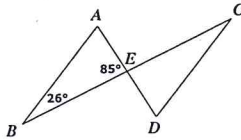


If the measure of $\angle 1$ is 115° , what should be the measure of $\angle 2$?

- F 25°
- G 65°
- H 75°
- J 115°

11.

For what measure of $\angle D$ is $\overline{AB} \parallel \overline{DC}$ in this figure?



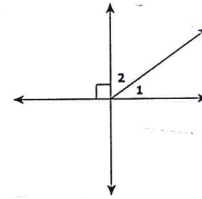
- A 26°
- B 59°
- C 69°
- D 95°

12.

In the figure shown, $m\angle 1 = (4x + 12)^\circ$ and $m\angle 2 = (6x + 8)^\circ$.

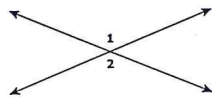
What is $m\angle 1$?

- A 20°
- B 40°
- C 50°
- D 76°



13.

In this figure, $m\angle 1 = (15x - 5)^\circ$ and $m\angle 2 = (10x + 35)^\circ$.

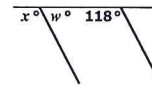


What is $m\angle 1$?

- F 31°
- G 65°
- H 85°
- J 115°

14.

This figure represents line segments painted on a parking lot to create parking spaces.

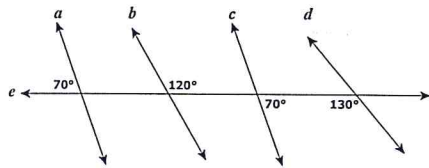


Which equation can be used to show that these line segments are parallel?

- A $118 - w = x$
- B $118 - x = w$
- C $x + 118 = 180$
- D $w + 118 = 180$

15.

In this figure, transversal e intersects lines a , b , c , and d .

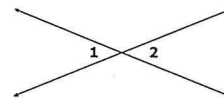


Which lines *must* be parallel?

- A a and c
- B b and c
- C b and d
- D a and d

16.

In the diagram, $m\angle 1 = (6x + 12)^\circ$ and $m\angle 2 = (9x - 4)^\circ$.

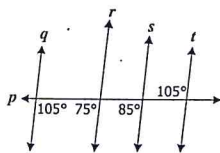


Which is closest to the value of x ?

- F 5.3
- G 5.5
- H 11.5
- J 12.5

17.

Line p is a transversal.

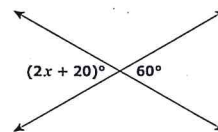


For lines q , r , s , and t , which is *not* parallel to the other three?

- A q
- B r
- C s
- D t

18.

Two lines intersect as shown.



What is the value of x ?

- F 20
- G 40
- H 50
- J 60