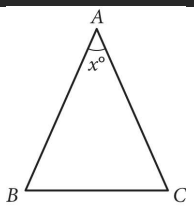


In the given triangle, $AB = AC$ and $\angle ABC$ has a measure of $67°$. What is the value of x ?

A. 36

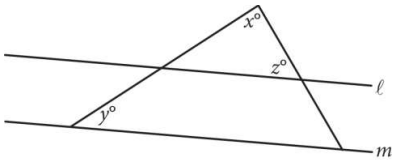
B. 46

C. 58

D. 70

ID: a6dbad6b

Geo & Trig E ~ #2



Note: Figure not drawn to scale.

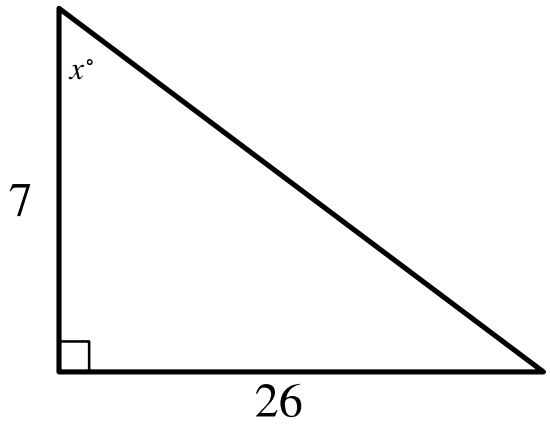
In the figure above, lines ℓ and m are parallel, $y = 20$, and $z = 60$. What is the value of x ?

A. 120

B. 100

C. 90

D. 80



Note: Figure not drawn to scale.

In the triangle shown, what is the value of $\tan x^\circ$?

A. $\frac{1}{26}$

B. $\frac{19}{26}$

C. $\frac{26}{7}$

D. $\frac{33}{7}$

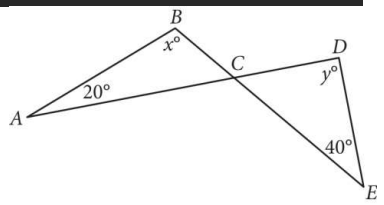
At a certain time and day, the Washington Monument in Washington, DC, casts a shadow that is 300 feet long. At the same time, a nearby cherry tree casts a shadow that is 16 feet long. Given that the Washington Monument is approximately 555 feet tall, which of the following is closest to the height, in feet, of the cherry tree?

A. 10

B. 20

C. 30

D. 35



Note: Figure not drawn to scale.

In the figure above, $\overline{AD}$ intersects $\overline{BE}$ at C. If $x = 100$, what is the value of y ?

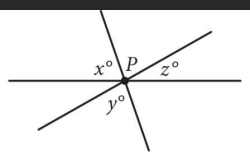
A. 100

B. 90

C. 80

D. 60

ID: 087cdcfd



Note: Figure not drawn to scale.

In the figure, three lines intersect at point *P*. If $x = 65$ and $y = 75$, what is the value of *z* ?

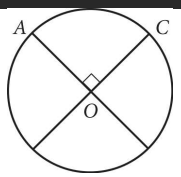
A. 140

B. 80

C. 40

D. 20

ID: 23c5fcce



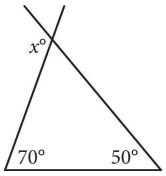
The circle above with center O has a circumference of 36. What is the length of minor arc $\overset{\frown}{AC}$?

A. 9

B. 12

C. 18

D. 36



In the figure above, two sides of a triangle are extended. What is the value of x ?

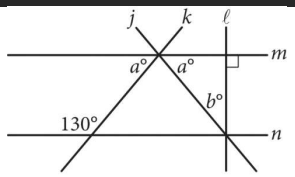
A. 110

B. 120

C. 130

D. 140

ID: 3828f53d



Note: Figure not drawn to scale.

In the figure above, lines *m* and *n* are parallel.
What is the value of *b* ?

A. 40

B. 50

C. 65

D. 80

ID: 0837c3b9

Geo & Trig E ~ #10

Triangle *ABC* and triangle *DEF* are similar triangles, where $\overline{AB}$ and $\overline{DE}$ are corresponding sides. If $DE = 2AB$ and the perimeter of triangle *ABC* is 20, what is the perimeter of triangle *DEF* ?

A. 10

B. 40

C. 80

D. 120