

Chapter 7 – Geometry

Pre Test

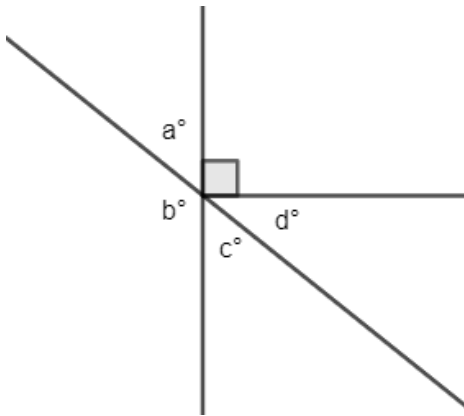


Figure not drawn to scale

1.) Based on the figure above, if $a + c = 100$, what is $b + d$?

- A) 100 B) 120 C) 130 D) 170

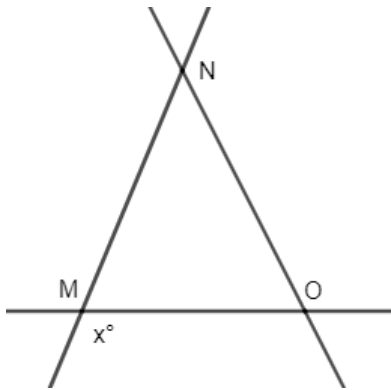
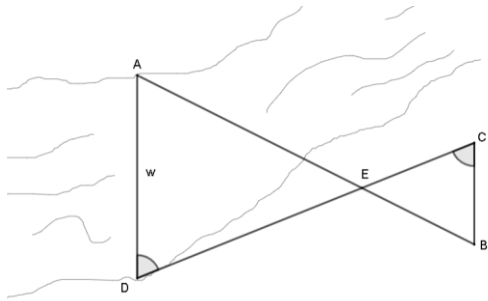


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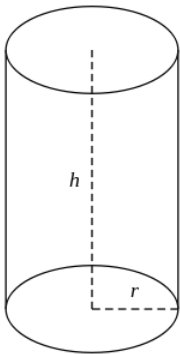
2.) The figure above shows isosceles triangle MNO with base \overline{MO} . If the measure of $\angle MNO = 14^\circ$, what is x ?

- A) 42 B) 83 C) 97 D) 138



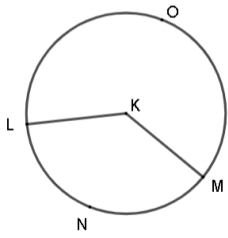
3.) An engineer is considering placing a bridge across a river from point A to point D, as represented in the sketch above. To do that she needs to know the width of the river, w . She determines that the lengths DE, EB, BC, and CE are 3000 feet, 1200 feet, 1000 feet, and 1500 feet, respectively. Segments AB and DC intersect at E and $\angle ADE$ and $\angle ECB$ have the same measure. What is the value of w , in feet?

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0	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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4.) A food engineer is designing a soda can in the shape of a right circular cylinder, such as the one shown above, where h represents the height and r represents the radius of the base. If the height of the soda can must be 7.5 inches and the can must hold 15.75π in³ of soda, which of the following is closest to the number inches the food engineer should make the diameter of the base? (*Hint: you may look at the reference information at the beginning of any SAT math test for the needed formula.*)

- A) 1.5 B) 2.5 C) 3 D) 6



5.) The circle above has center K. If the measure of $\angle LKM$ is 120° and arc LNM has a length of 12π , what is the length of arc LOM?

- A) 6π B) 12π C) 24π D) 36π

Answer Key

1.) D

2.) C

3.) 2000

4.) C

5.) C