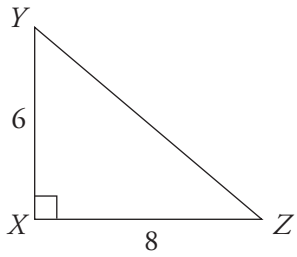
Drill 2

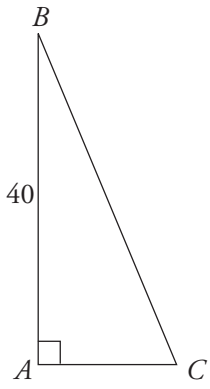
Answers can be found in Part IV.



a. What is the area of triangle *XYZ* above? _____

b. What is the length of *YZ*? _____

c. What is the sine of $\angle Z$? _____



d. If the area of the triangle above is 400, what is the length of *AC*? _____

e. What is the length of *BC*? _____

f. What is the cosine of $\angle C$? _____

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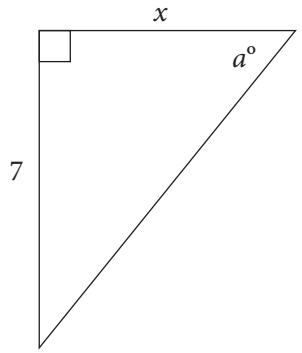

In the triangle above, $\tan a^\circ = \frac{14}{15}$. What is the value of x ?

	⟋	⟋	
.	.	.	.
	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

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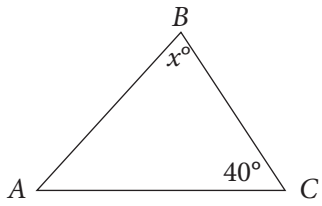


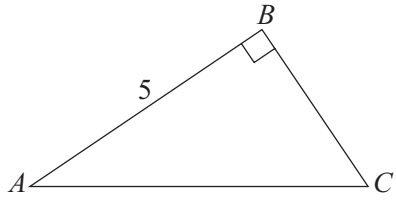
Note: Figure not drawn to scale.

In triangle ABC above, if $AB = BC$, what is the value of x ?

(Disregard the degree symbol when gridding your answer.)

	⟋	⟋	
.	.	.	.
	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

8



Note: Figure not drawn to scale.

In the figure above, if triangle ABC is isosceles, what is the perimeter of the triangle?

A) 12.5

B) $10\sqrt{2}$

C) $10+5\sqrt{2}$

D) $15\sqrt{2}$

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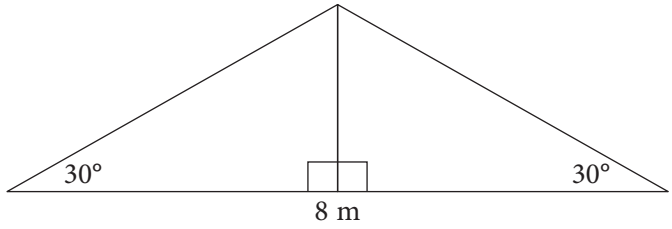

The owner of a barn needs to paint the front of the barn's roof. As shown in the figure above, the roof measures 8 m along the bottom, and the sides of the roof meet the bottom at a 30° angle. If one bucket of paint can cover 5 m^2, what is the minimum number of buckets the owner needs to purchase?

A) 1

B) 2

C) 3

D) 4

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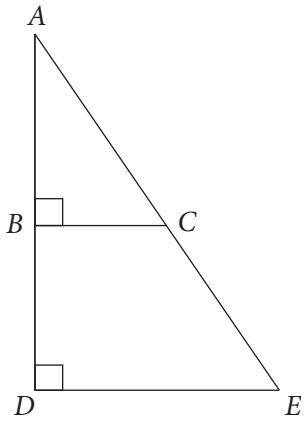

Note: Figure not drawn to scale.

In the figure above, if $AB = 5$, $AC = 13$, and $DE = 24$, what is the value of BD ?

A) 12

B) 10

C) 8

D) 5

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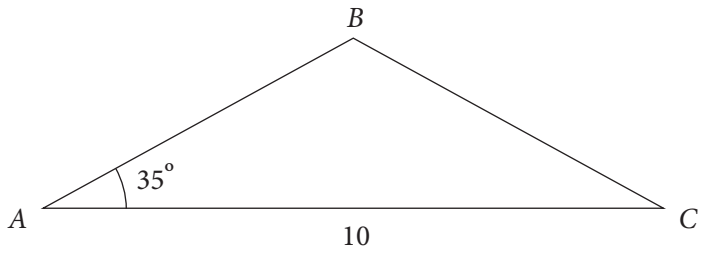

In the triangle above, $AB = BC$. Which of the following accurately expresses the perimeter of the triangle?

A) $10 + 10 \sin 55°$

B) $10 + 10 \cos 35°$

C) $10 + \dfrac{10}{\sin 55°}$

D) $25 \tan 35°$