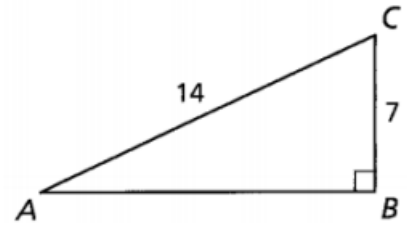


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Using the figure at the right, answer the following questions:

1. What do you need to find in order to "solve the right triangle"?
2. What is the length of AB?



We can use trigonometric ratios to find the  $m\angle A$  and  $m\angle C$

3. Find the sine, cosine, and tangent of  $m\angle A$ ?
4. Find the sine, cosine, and tangent of  $\angle C$ ?

How do they compare?

Draw  $\triangle ABC$  where  $\angle ACB = 90^\circ$ ,  $AC = 10$ , and  $CB = 24$ .

5. What is the length of AB?
6. What is  $\cos A$ ?
7. What is  $\sin B$ ?

8. Angle X and Angle Y are complementary angles in a right triangle. The value of  $\tan x$  is  $14/48$ . What is the value of  $\sin Y$ ?

- A.  $14/48$
- B.  $14/50$
- C.  $48/50$
- D.  $50/48$

Write each trig function in terms of its co-function.

9.  $\sin 64 =$  \_\_\_\_\_
10.  $\cos 84 =$  \_\_\_\_\_
11.  $\cos 38 =$  \_\_\_\_\_
12.  $\sin 24 =$  \_\_\_\_\_
13.  $\cos 72 =$  \_\_\_\_\_
14.  $\sin 45 =$  \_\_\_\_\_
15.  $\sin x =$  \_\_\_\_\_
16.  $\cos x =$  \_\_\_\_\_

17. Multiple Choice: In right triangle ABC  $\sin A = 0.8$ . What is the  $\cos B$ ?

- A. 0.8
- B. 0.6
- C. 1.0
- D. 0.5

18. In right triangle ABC  $\cos A = 1.23$ . What is the  $\sin B$ ?

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19. In right triangle ABC  $\sin B = .67$ . What is the  $\cos A$ ?

20. Multiple Choice: Identify the **two equal** trigonometric ratios from the options given:

- A.  $\sin 30$
- B.  $\cos 30$
- C.  $\cos 60$
- D.  $\tan 30$

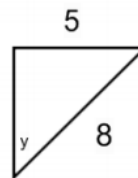
21. Multiple Choice: If the  $\sin A = 3/5$ , the  $\cos (90 - A) = \underline{\hspace{1cm}}$ ?

- A.  $5/3$
- B.  $3/5$
- C.  $4/3$
- D.  $3/4$

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22. Multiple Choice: In the triangle,  $\sin y = 5/8$ , which of the following is true?

- A.  $\tan y = 5/8$
- B.  $\cos y = 5/8$
- C.  $\sin (90 - y) = 5/8$
- D.  $\cos (90 - y) = 5/8$



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23. Find the value of  $x$  if  $\sin(3x + 2) = \cos(x + 44)$

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24. Find the value of  $x$  if  $\cos(x + 16) = \sin(3x - 2)$

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BONUS: Select the **two** possible simplifications of:  $\sin 31 + \cos 59$

- A.  $2 \sin 31$
- B.  $\sin 31 \times \cos 59$
- C.  $2 \cos 59$
- D.  $\cos 118$