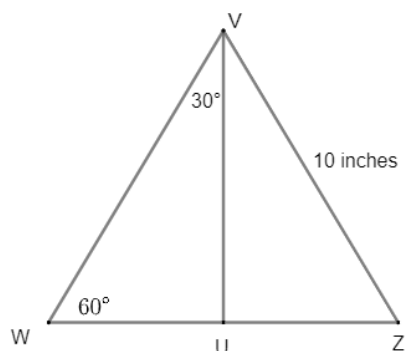


# Trigonometry Pre-Test

1.



In triangle  $WVZ$ ,  $WU = UZ$ . What is the length, in inches, of  $WU$ ?

- A) 5
- B)  $5\sqrt{2}$
- C)  $5\sqrt{3}$
- D) 10

2.

In triangle  $ABC$ , with right angle  $B$ ,  $AB = 1$  and  $BC = \frac{4}{3}$ . What is the value of  $\sin C$ ?

- A)  $\frac{3}{5}$
- B)  $\frac{4}{5}$
- C)  $\frac{5}{3}$
- D)  $\frac{4}{3}$

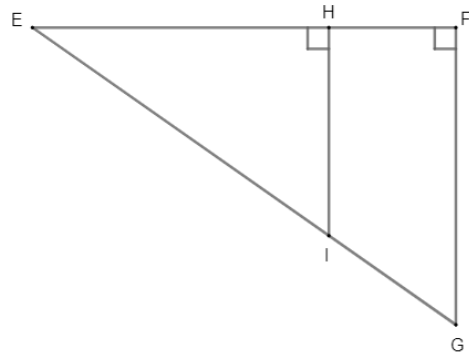
# Trigonometry Pre-Test

3.

The number of radians in a 540-degree angle can be written as  $k\pi$ , where  $k$  is a constant. What is the value of  $k$ ?

- A) 1.5
- B) 2
- C) 2.5
- D) 3

4.

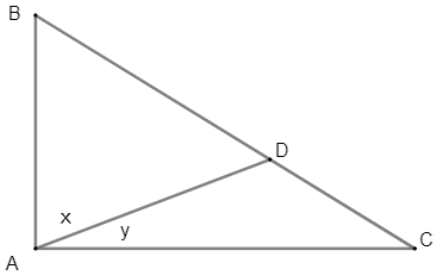


In the triangle shown,  $EH = 24$ ,  $HF = 12$ , and  $\cos E = \frac{12}{13}$ . What is the length of  $\overline{FG}$ ?

- A) 10
- B) 13
- C) 15
- D) 26

# Trigonometry Pre-Test

5.

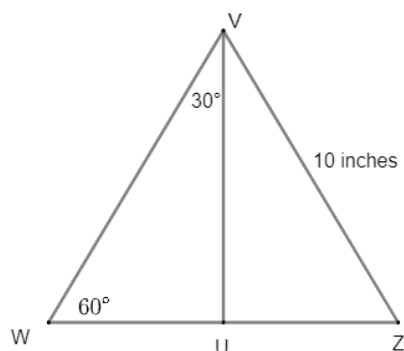


In the triangle shown below,  $\angle BAC$  is right.  
What is the value of  $\sin(x) - \cos(y)$  ?

- A) -1
- B) 0
- C)  $\sqrt{2}$
- D)  $\sqrt{3} - \sqrt{2}$

# Trigonometry Pre-Test

1. Answer



In triangle WVZ,  $WU = UZ$ . What is the length, in inches, of  $WU$  ?

- A) 5
- B)  $5\sqrt{2}$
- C)  $5\sqrt{3}$
- D) 10

Answer: A

Domain: 4 (Geometry and Trigonometry)

Skill: c (Right Triangles and Trigonometry)

Difficulty: 2 (Blue Square / Intermediate)

Strategy: 6 (Find a shortcut)

2. Answer

In triangle ABC, with right angle B,  $AB = 1$  and  $BC = \frac{4}{3}$ . What is the value of  $\sin C$  ?

- A)  $\frac{3}{5}$
- B)  $\frac{4}{5}$
- C)  $\frac{5}{3}$
- D)  $\frac{4}{3}$

Answer: A

Domain: 4 (Geometry and Trigonometry)

Skill: c (Right Triangles and Trigonometry)

Difficulty: 3 (Black Diamond / Hard)

Strategy: 6 (Find a shortcut)

# Trigonometry Pre-Test

3. Answer

The number of radians in a 540-degree angle can be written as  $k\pi$ , where  $k$  is a constant. What is the value of  $k$ ?

- A) 1.5
- B) 2
- C) 2.5
- D) 3

Answer: D

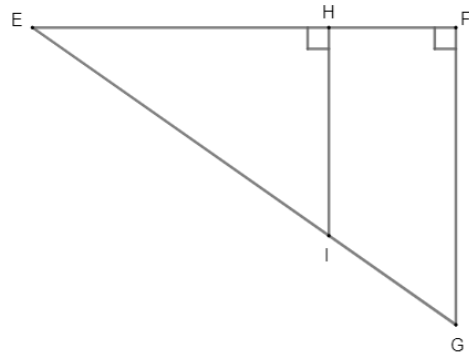
Domain: 4 (Geometry and Trigonometry)

Skill: b (Lines, angles, and triangles)

Difficulty: 2 (Blue Square / Intermediate)

Strategy: 6 (Find a shortcut)

4. Answer



In the triangle shown,  $EH = 24$ ,  $HF = 12$ , and  $\cos E = \frac{12}{13}$ . What is the length of  $\overline{FG}$ ?

- A) 10
- B) 13
- C) 15
- D) 26

Answer: C

Domain: 4 (Geometry and Trigonometry)

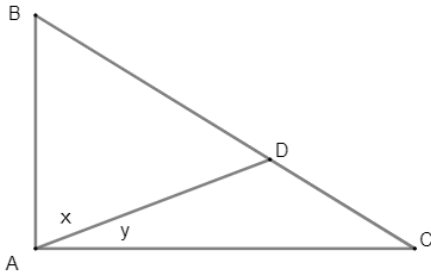
Skill: c (Right Triangles and Trigonometry)

Difficulty: 3 (Black Diamond / Hard)

Strategy: 6 (Find a shortcut)

# Trigonometry Pre-Test

## 5. Answer



In the triangle shown below,  $\angle BAC$  is right.  
What is the value of  $\sin(x) - \cos(y)$  ?

- A) -1
- B) 0
- C)  $\sqrt{2}$
- D)  $\sqrt{3} - \sqrt{2}$

Answer: B

Domain: 4 (Geometry and Trigonometry)

Skill: c (Right Triangles and Trigonometry)

Difficulty: 3 (Black Diamond / Hard)

Strategy: 6 (Find a shortcut)