ARIZONA GEOMETRY · UNIT 3 · 25 QUESTIONS

Trigonometry and Measurement — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **The right triangle shown has two sides labelled. The sine of angle A is**

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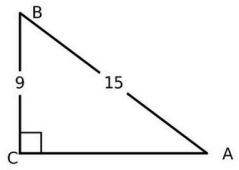

Question 1

The right triangle shown has two sides labelled. The sine of angle A is

A) $\frac{9}{15}$ B) $\frac{12}{15}$

C) $\frac{9}{12}$ D) $\frac{15}{9}$

A $\frac{9}{15}$

B $\frac{12}{15}$

C $\frac{9}{12}$

D $\frac{15}{9}$

A $\frac{9}{15}$

B $\frac{12}{15}$

C $\frac{9}{12}$

D $\frac{15}{9}$

Understand It with Pulse

Flag a mistake

2 In a 5 12 13 right triangle, the cosine of the angle adjacent to the side of length 12 is

- **A** $\frac{5}{13}$
- **B** $\frac{12}{13}$
- **C** $\frac{12}{5}$
- **D** $\frac{13}{12}$

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3 In a right triangle, the opposite side is 8 and the adjacent side is 15. The tangent of the angle is

- **A** $\frac{8}{17}$
- **B** $\frac{15}{17}$
- **C** $\frac{8}{15}$
- **D** $\frac{15}{8}$

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4 **In a right triangle, sin 30° = 0.5. If the hypotenuse is 20, the opposite side is _____**

ANSWER _____

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5 **In a right triangle, cos 60° = 0.5. If the hypotenuse is 14, the adjacent side is**

A 7

B 28

C 14

D 3.5

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6 **In a right triangle, tan 45° = 1. If the adjacent side is 9, the opposite side is**

- A 4.5
- B 9
- C 18
- D 1

Understand It with Pulse | Flag a mistake

7 **If sin x = 0.5 and x is acute, then x is**

- A 30°
- B 45°
- C 60°
- D 90°

Understand It with Pulse | Flag a mistake

8 **A pole 12 tall casts a shadow 12 long. The angle of elevation of the sun is**



A 30°

B 45°

C 60°

D 90°

Understand It with Pulse | Flag a mistake

9 **A right triangle has hypotenuse 13 and one leg 5. The other leg is**



A 8

B 12

C 18

D 14

Understand It with Pulse | Flag a mistake

10 **A right triangle has legs 9 and 12. The hypotenuse is**

- A 15
- B 21
- C 10.5
- D 18

Understand It with Pulse | Flag a mistake

11 **In a 30 60 90 triangle, the shortest side is 7. The hypotenuse is**

- A 7
- B 14
- C $7\sqrt{3}$
- D 21

Understand It with Pulse | Flag a mistake

12 **In a 30 60 90 triangle, the shortest side is 7. The longer leg is**

A 7

B 14

C $7\sqrt{3}$

D 21

Understand It with Pulse | Flag a mistake

13 **In a 45 45 90 triangle, a leg is 6. The hypotenuse is**



A 6

B 12

C $6\sqrt{2}$

D $3\sqrt{2}$

Understand It with Pulse | Flag a mistake

14 **A triangle has base 10 and height 6. Its area is**

- A 60
- B 30
- C 16
- D 32

Understand It with Pulse | Flag a mistake

15 **A parallelogram has base 8 and height 5. Its area is**

- A 13
- B 40
- C 26
- D 20

Understand It with Pulse | Flag a mistake

16 **A trapezoid has bases 10 and 16 and height 5. Its area is**

- A 65
- B 130
- C 80
- D 45

Understand It with Pulse | Flag a mistake

17 **A prism has base area 20 and height 6. Its volume is**

- A 26
- B 120
- C 60
- D 240

Understand It with Pulse | Flag a mistake

18 **A cylinder has radius 3 and height 5. Its volume is**



A 15π

B 45π

C 30π

D 75π

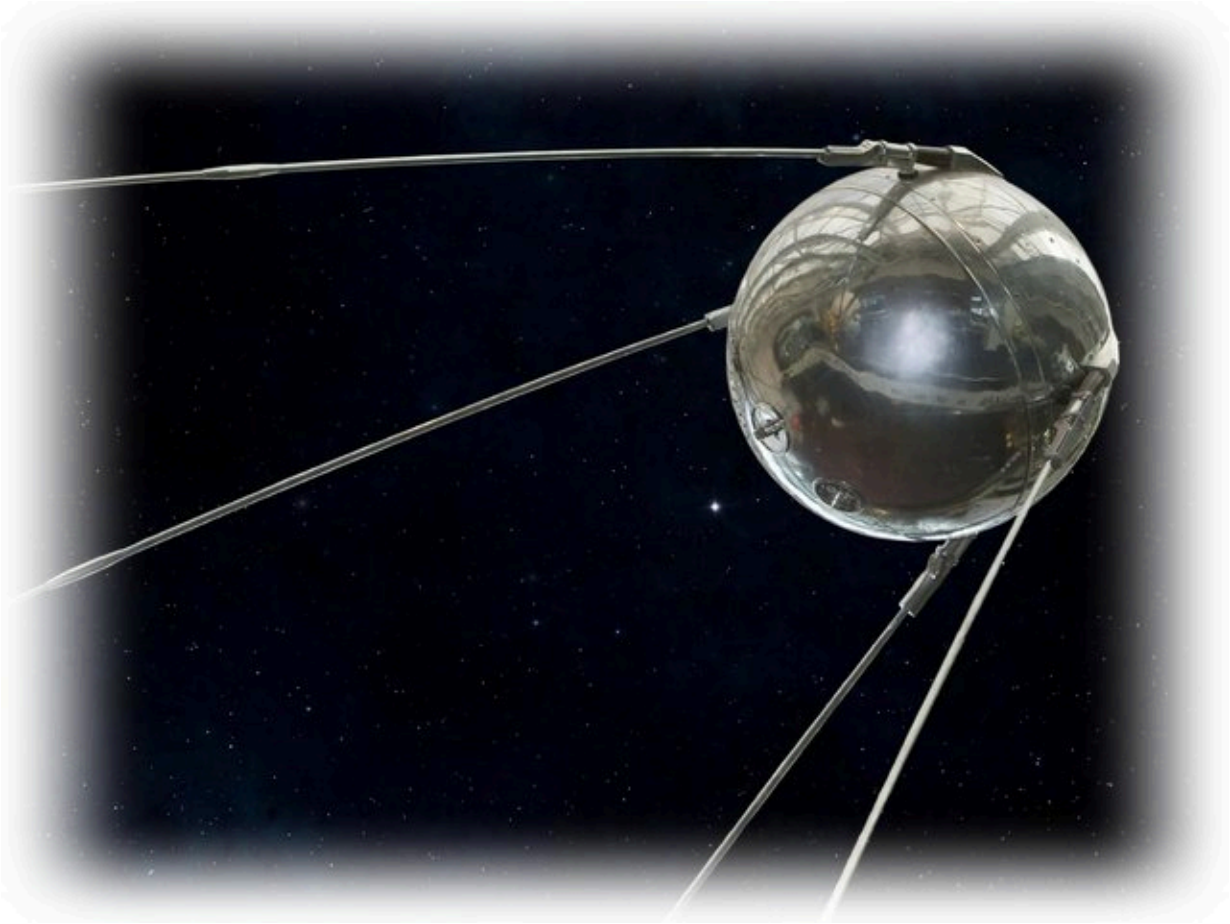
Understand It with Pulse | Flag a mistake

19 **A cone has radius 4 and height 9. Its volume is**

- A 48π
- B 144π
- C 36π
- D 16π

Understand It with Pulse | Flag a mistake

20 **A sphere has radius 3. Its volume is**



A 12π

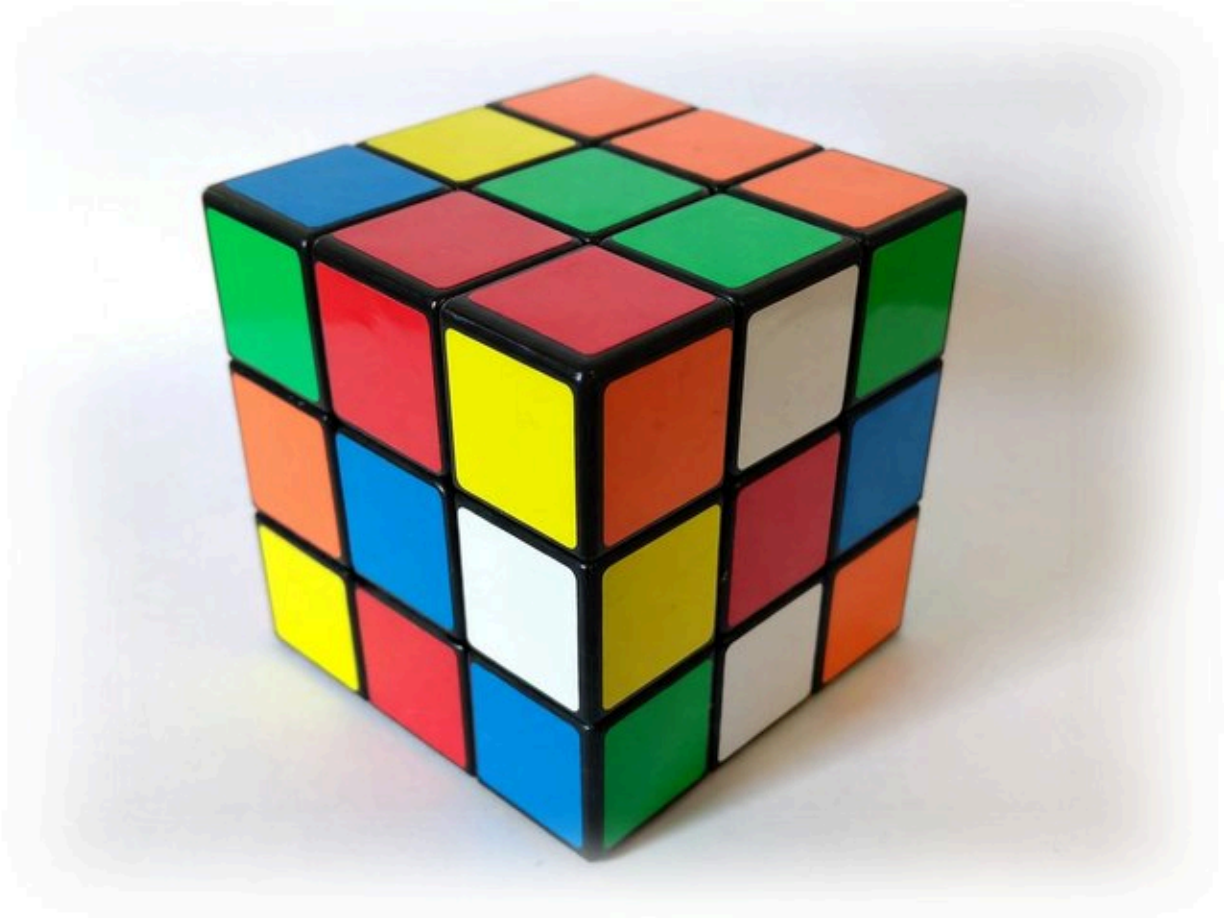
B 36π

C 27π

D 108π

Understand It with Pulse | Flag a mistake

21 **A cube has side length 4. Its surface area is**



A 16

B 64

C 96

D 24

Understand It with Pulse | Flag a mistake

22 **A cylinder has radius 2 and height 5. Its total surface area is**

- A 20π
- B 28π
- C 14π
- D 40π

Understand It with Pulse | Flag a mistake

23 **A sphere has radius 3. Its surface area is**

- A 36π
- B 12π
- C 9π
- D 108π

Understand It with Pulse | Flag a mistake

24 **One acute angle of a right triangle measures 35°. The other acute angle measures**

A 35°

B 55°

C 145°

D 90°

Understand It with Pulse | Flag a mistake

25 **For complementary angles, sin 40° equals**

A cos 40°

B cos 50°

C sin 50°

D tan 40°

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	A	**10.**	A	**19.**	A
2.	B	**11.**	B	**20.**	B
3.	C	**12.**	C	**21.**	C
4.	10	**13.**	C	**22.**	B
5.	A	**14.**	B	**23.**	A
6.	B	**15.**	B	**24.**	B
7.	A	**16.**	A	**25.**	B
8.	B	**17.**	B		
9.	B	**18.**	B		

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