DELAWARE GEOMETRY · FINAL EXAM · 50 QUESTIONS

Final Exam — 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 **Two angles of a triangle measure 52° and 51°. The third angle measures**

- A 87°
- B 67°
- C 103°
- D 77°

Understand It with Pulse | Flag a mistake

2 **A circle has radius 8 and a central angle of 90°. The arc length is**

- A 8π
- B 5π
- C 4π
- D 2π

Understand It with Pulse | Flag a mistake

3 **A right triangle has legs of lengths 9 and 12. The hypotenuse has length**

- **A** 17
- **B** 14
- **C** 15
- **D** 21

Understand It with Pulse | Flag a mistake

4 **The range of 9, 14, 12, 2, 24 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **Two similar figures have a linear scale factor of 1:2. The smaller figure has area 12. The larger area is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 An angle measures 31°. Its supplement measures

- **A** 59°
- **B** 31°
- **C** 149°
- **D** 211°

Understand It with Pulse | Flag a mistake

7 In a right triangle, the side opposite an acute angle is 5 and the hypotenuse is 13. The sine of the angle is

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

Understand It with Pulse | Flag a mistake

8 **How many ways can 2 items be chosen from 7 items, where order does not matter?**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **Under the translation (x + -1, y + -2), the point (-2, -3) maps to**

A (-1, -1)

B (-4, -4)

C (-3, -5)

D (-2, -3)

Understand It with Pulse | Flag a mistake

10 **A circle has radius 6. Its circumference is**

- **A** 6π
- **B** 12π
- **C** 36π
- **D** 8π

Understand It with Pulse | Flag a mistake

11 **An exterior angle of a triangle has remote interior angles measuring 38° and 44°. The exterior angle measures**

- **A** 102°
- **B** 82°
- **C** 62°
- **D** 98°

Understand It with Pulse | Flag a mistake

12 **The median of 3, 11, 15, 16, 22 is**

- A 15
- B 3
- C 22
- D 13

Understand It with Pulse | Flag a mistake

13 **Two triangles are described in which two pairs of corresponding angles are equal and a pair of non included sides is equal. Which congruence criterion applies?**

- A SSS
- B SAS
- C AAS
- D ASA

Understand It with Pulse | Flag a mistake

14 **A circle has center (4, -2) and radius 5. Its equation is**

- **A** $x^2 + y^2 = 25$
- **B** $(x - 4)^2 + (y + 2)^2 = 5$
- **C** $x^2 + y^2 = 5$
- **D** $(x - 4)^2 + (y + 2)^2 = 25$

Understand It with Pulse | Flag a mistake

15 **Two angles of a triangle measure 63° and 91°. The third angle measures**

- **A** 36°
- **B** 26°
- **C** 16°
- **D** 154°

Understand It with Pulse | Flag a mistake

16 **The mode of 14, 12, 13, 11, 11 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

17 **A right triangle has hypotenuse 10 and one leg of length 6. The other leg has length**

A 10

B 7

C 9

D 8

Understand It with Pulse | Flag a mistake

18 The sum of the interior angles of a polygon with 9 sides is

- A 1440°
- B 1080°
- C 360°
- D 1260°

Understand It with Pulse | Flag a mistake

19 In a 45-45-90 triangle, each leg is 7. The hypotenuse is

- A 14
- B $7\sqrt{2}$
- C $7\sqrt{3}$
- D 7

Understand It with Pulse | Flag a mistake

20 **The range of 17, 22, 6, 9, 6 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

21 **Two similar figures have a linear scale factor of 1:4. The smaller figure has area 12. The larger area is**

ANSWER _____

Understand It with Pulse | Flag a mistake

22 **An angle measures 50°. Its complement measures**

A 140°

B 40°

C 130°

D 50°

Understand It with Pulse | Flag a mistake

23 In a right triangle, the side opposite an acute angle is 5, the adjacent side is 12, and the hypotenuse is 13. The tangent of the angle is

A $\frac{5}{12}$

B $\frac{12}{5}$

C $\frac{5}{13}$

D $\frac{12}{13}$

Understand It with Pulse | Flag a mistake

24 How many ways can 2 items be chosen from 8 items, where order does not matter?

ANSWER _____

Understand It with Pulse | Flag a mistake

25 **A right triangle has legs of lengths 6 and 8. The hypotenuse has length**

- A 12
- B 10
- C 9
- D 14

Understand It with Pulse | Flag a mistake

26 **The midpoint of the segment joining (4, 2) and (0, 6) is**

- A (2, 4)
- B (4, 8)
- C (2, 2)
- D (4, 4)

Understand It with Pulse | Flag a mistake

27 **An exterior angle of a triangle has remote interior angles measuring 63° and 86°. The exterior angle measures**

A 149°

B 169°

C 129°

D 31°

Understand It with Pulse | Flag a mistake

28 **The range of 17, 21, 19, 24, 15 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

29 **Two angles of a triangle measure 25° and 58°. The third angle measures**

A 107°

B 97°

C 87°

D 83°

Understand It with Pulse | Flag a mistake

30 **A circle has radius 3. Its area is**

A 9π

B 6π

C 3π

D 18π

Understand It with Pulse | Flag a mistake

31 An exterior angle of a triangle has remote interior angles measuring 38° and 56°. The exterior angle measures

- A 114°
- B 94°
- C 74°
- D 86°

Understand It with Pulse | Flag a mistake

32 How many ways can 2 items be arranged from 6 items, where order matters?

ANSWER _____

Understand It with Pulse | Flag a mistake

33 In a triangle, a midsegment is parallel to a base of length 10. The length of the midsegment is

ANSWER _____

Understand It with Pulse | Flag a mistake

34 **A circle has center (-1, 0) and radius 5. Its equation is**

- **A** $x^2 + y^2 = 25$
- **B** $(x + 1)^2 + y^2 = 5$
- **C** $x^2 + y^2 = 5$
- **D** $(x + 1)^2 + y^2 = 25$

Understand It with Pulse | Flag a mistake

35 **An exterior angle of a triangle has remote interior angles measuring 68° and 77°. The exterior angle measures**

- **A** 145°
- **B** 165°
- **C** 125°
- **D** 35°

Understand It with Pulse | Flag a mistake

36 **The range of 8, 20, 9, 20, 4 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

37 **Under a dilation centered at the origin with scale factor 2, the point (2, 1) maps to**

A (2, 1)

B (4, 3)

C (4, 1)

D (4, 2)

Understand It with Pulse | Flag a mistake

38 An angle measures 88°. Its supplement measures

- **A** 2°
- **B** 88°
- **C** 92°
- **D** 268°

Understand It with Pulse | Flag a mistake

39 In a right triangle, the side opposite an acute angle is 3, the adjacent side is 4, and the hypotenuse is 5. The cosine of the angle is

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

Understand It with Pulse | Flag a mistake

40 **The mode of 13, 14, 12, 15, 12 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

41 **Under the translation (x + 0, y + 3), the point (4, 0) maps to**

A (4, -3)

B (7, 0)

C (4, 3)

D (4, 0)

Understand It with Pulse | Flag a mistake

42 A circle has radius 12 and a central angle of 60°. The arc length is

- **A** 12π
- **B** 5π
- **C** 4π
- **D** 2π

Understand It with Pulse | Flag a mistake

43 In a right triangle, the side opposite an acute angle is 9, the adjacent side is 12, and the hypotenuse is 15. The cosine of the angle is

- **A** $\frac{12}{15}$
- **B** $\frac{9}{15}$
- **C** $\frac{12}{9}$
- **D** $\frac{15}{12}$

Understand It with Pulse | Flag a mistake

44 **The range of 27, 24, 4, 25, 8 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

45 **Two angles of a triangle measure 69° and 81°. The third angle measures**

A 40°

B 20°

C 150°

D 30°

Understand It with Pulse | Flag a mistake

46 **An angle measures 158°. Its supplement measures**

A 248°

B 158°

C 22°

D 338°

Understand It with Pulse | Flag a mistake

47 **An exterior angle of a triangle has remote interior angles measuring 41° and 58°. The exterior angle measures**

A 99°

B 119°

C 79°

D 81°

Understand It with Pulse | Flag a mistake

48 **The mean of 11, 4, 14, 9 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

49 **In a triangle, a midsegment is parallel to a base of length 18. The length of the midsegment is**

ANSWER _____

Understand It with Pulse | Flag a mistake

50 **The midpoint of the segment joining (0, 6) and (-4, -2) is**

A (-2, 2)

B (-4, 4)

C (-2, 6)

D (0, 2)

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	D	**18.**	D	**35.**	A
2.	C	**19.**	B	**36.**	16
3.	C	**20.**	16	**37.**	D
4.	22	**21.**	192	**38.**	C
5.	48	**22.**	B	**39.**	D
6.	C	**23.**	A	**40.**	12
7.	A	**24.**	28	**41.**	C
8.	21	**25.**	B	**42.**	C
9.	C	**26.**	A	**43.**	A
10.	B	**27.**	A	**44.**	23
11.	B	**28.**	9	**45.**	D
12.	A	**29.**	B	**46.**	C
13.	C	**30.**	A	**47.**	A
14.	D	**31.**	B	**48.**	9.5
15.	B	**32.**	30	**49.**	9
16.	11	**33.**	5	**50.**	A
17.	D	**34.**	D		

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