# Final Exam — Practice Test

**Prince Edward Island Foundations of Mathematics 11 • 50 questions**

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 **In a class, 40 students play soccer, 30 students play hockey, and 15 students play both sports. How many students play at least one of the two sports**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **In a right triangle, the side opposite an angle is 3 units and the side adjacent to the angle is 4 units. What is the tangent of the angle, to two decimal places**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **The data set is 4, 6, 8, 10, 12. What is the median of the data set**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **Solve the inequality 2x + 3 < 11 for x. What is the boundary value of x**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **y varies directly with x , and y = 12 when x = 4 . What is the constant of variation**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **A truth table for the variables p, q, r, s and t has how many rows**

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **A straight angle measures**

A 90 degrees

B 270 degrees

C 180 degrees

D 360 degrees

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8 **A data set with one very large outlier will pull the mean**

A away from the outlier

B to the median

C to zero

D toward the outlier

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9 **Does the point with x = 1 and y = 1 satisfy the system where x + y is less than 5 and y is greater than 0**

A No, it does not satisfy both inequalities

B It satisfies only the first inequality

C Yes, it satisfies both inequalities

D It satisfies only the second inequality

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10 **If a quadratic has one repeated real root, its discriminant is**

A positive

B negative

C undefined

D zero

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**11** **Begin with If a number is even, then it is divisible by two. Rewrite it as If a number is even is not true, then it is divisible by two is not true. This rewritten statement is the**

- A inverse
- B converse
- C contrapositive
- D original statement

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**12** **In a right triangle, the square of the hypotenuse equals**

- A the difference of the squares
- B the sum of the squares of the other two sides
- C twice the product of the legs
- D the sum of the legs

Understand It with Pulse | Flag a mistake

**13** **Drawing a card from a standard deck, the probability of drawing an ace is**

- **A** $\frac{1}{4}$
- **B** $\frac{1}{52}$
- **C** $\frac{1}{13}$
- **D** $\frac{1}{2}$

Understand It with Pulse | Flag a mistake

**14** **If a point lies on a dashed boundary line, it is**

- **A** not included in the solution
- **B** always included
- **C** the only solution
- **D** ignored

Understand It with Pulse | Flag a mistake

**15** **In inverse variation, as x doubles, y**

- A doubles
- B stays the same
- C becomes zero
- D halves

Understand It with Pulse | Flag a mistake

**16** **Begin with If a plant receives sunlight, then the plant grows. Rewrite it as If a plant receives sunlight is not true, then the plant grows is not true. This rewritten statement is the**

- A converse
- B contrapositive
- C inverse
- D original statement

Understand It with Pulse | Flag a mistake

17 **The angles of a triangle always add to**

A 180 degrees

B 90 degrees

C 270 degrees

D 360 degrees

Understand It with Pulse | Flag a mistake

18 **The mean of a data set is found by**

A adding all values and dividing by the number of values

B subtracting the smallest from the largest

C choosing the middle value

D choosing the most common value

Understand It with Pulse | Flag a mistake

19 **A point has coordinates x = 3 and y = 2 . What is the value of x + y**

ANSWER _____

Understand It with Pulse | Flag a mistake

20 **The graph of a quadratic function is called a**

A parabola

B line

C circle

D hyperbola

Understand It with Pulse | Flag a mistake

21 **Begin with If a light is switched on, then electricity flows through it. Rewrite it as If electricity flows through it, then a light is switched on. This rewritten statement is the**

A inverse

B converse

C contrapositive

D negation

Understand It with Pulse | Flag a mistake

22 **In a right triangle, the side opposite an angle is 6 units and the hypotenuse is 10 units. What is the sine of the angle, to two decimal places**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **The data set is 5, 5, 8, 9, 13. What is the median of the data set**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **Does the point with x = 3 and y = 1 satisfy the system where x + y is greater than 5 and x is less than 2**

A Yes, it satisfies both inequalities

B It satisfies only the first inequality

C It satisfies only the second inequality

D No, it does not satisfy both inequalities

Understand It with Pulse | Flag a mistake

25 **The vertex of a parabola is its**

A x intercept only

B highest or lowest point

C y intercept only

D midpoint of the axes

Understand It with Pulse | Flag a mistake

26 **A set with 4 elements has how many subsets in total**

ANSWER _____

Understand It with Pulse | Flag a mistake

27 **In a right triangle, the side opposite an angle is 9 units and the hypotenuse is 15 units. What is the sine of the angle, to two decimal places**

ANSWER _____

Understand It with Pulse | Flag a mistake

28 **The data set is 2, 4, 6, 6, 12. What is the mean of the data set**

ANSWER _____

Understand It with Pulse | Flag a mistake

29 **A point has coordinates x = 1 and y = 4 . What is the value of x + y**

ANSWER _____

Understand It with Pulse | Flag a mistake

30 **y varies inversely with x , with constant 20 . What is y when x = 4**

ANSWER _____

Understand It with Pulse | Flag a mistake

31 **A survey finds 95 people like apples, 80 people like pears, and 30 people like both fruits. How many people like at least one of the two fruits**

ANSWER _____

Understand It with Pulse | Flag a mistake

32 **In a right triangle, the side opposite an angle is 12 units and the hypotenuse is 13 units. What is the sine of the angle, to two decimal places**

ANSWER _____

Understand It with Pulse | Flag a mistake

33 **The data set is 3, 7, 9, 11, 15. What is the mean of the data set**

ANSWER _____

Understand It with Pulse | Flag a mistake

34 **Solve the inequality 2x + 4 < 14 for x. What is the boundary value of x**

ANSWER _____

Understand It with Pulse | Flag a mistake

35 **For the quadratic function y = (x - 2)(x - 5) what is the x coordinate of the vertex**

ANSWER _____

Understand It with Pulse | Flag a mistake

36 **In a class, 35 students play soccer, 50 students play hockey, and 18 students play both sports. How many students play at least one of the two sports**

ANSWER _____

Understand It with Pulse | Flag a mistake

37 **In a triangle, two angles measure 50 degrees and 60 degrees. What is the measure of the third angle in degrees**

ANSWER _____

Understand It with Pulse | Flag a mistake

38 **The data set is 3, 7, 9, 11, 15. What is the range of the data set**

ANSWER _____

Understand It with Pulse | Flag a mistake

39 **Solve the inequality 2x + 5 > 15 for x. What is the boundary value of x**

ANSWER _____

Understand It with Pulse | Flag a mistake

40 **y varies directly with x , and y = 15 when x = 3 . What is the constant of variation**

ANSWER _____

Understand It with Pulse | Flag a mistake

41 **Start with the statement If a person is a teenager, then the person is younger than twenty. Change it to If the person is younger than twenty is not true, then a person is a teenager is not true. This new statement is the**

A converse

B contrapositive

C inverse

D negation

Understand It with Pulse | Flag a mistake

42 **An angle greater than 90 degrees and less than 180 degrees is called**

A acute

B obtuse

C reflex

D straight

Understand It with Pulse | Flag a mistake

**43** **The most common value in 2, 3, 3, 5, 7 is**

- **A** 2
- **B** 5
- **C** 7
- **D** 3

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**44** **The inequality x less than or equal to 2 is graphed with a**

- **A** open circle at 2 and shading to the right
- **B** closed circle at 2 and shading to the right
- **C** open circle at 2 and shading to the left
- **D** closed circle at 2 and shading to the left

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**45** **A quadratic function with a negative leading coefficient opens**

- A downward
- B upward
- C to the left
- D to the right

Understand It with Pulse | Flag a mistake

**46** **Start with the statement If a triangle is equilateral, then it has three equal angles. Change it to If it has three equal angles, then a triangle is equilateral. This new statement is the**

- A converse
- B inverse
- C contrapositive
- D negation

Understand It with Pulse | Flag a mistake

**47** **In a triangle, the side opposite the largest angle is the**

- **A** shortest side
- **B** median
- **C** longest side
- **D** altitude

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**48** **When a fair six sided die is rolled, the probability of rolling a 6 is**

- **A** $\frac{1}{2}$
- **B** $\frac{1}{3}$
- **C** 1
- **D** $\frac{1}{6}$

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49 **Solve the inequality 2x + 2 > 12 for x. What is the boundary value of x**

ANSWER _____

Understand It with Pulse | Flag a mistake

50 **y varies directly with x , and y = 12 when x = 2 . What is the constant of variation**

ANSWER _____

Understand It with Pulse | Flag a mistake

# ANSWER KEY

| | | | | | |
|---|---|---|---|---|---|
| **1.** | 55 | **18.** | A | **35.** | 3.50 |
| **2.** | 0.75 | **19.** | 5 | **36.** | 67 |
| **3.** | 8 | **20.** | A | **37.** | 70 |
| **4.** | 4 | **21.** | B | **38.** | 12 |
| **5.** | 3 | **22.** | 0.60 | **39.** | 5 |
| **6.** | 32 | **23.** | 8 | **40.** | 5 |
| **7.** | C | **24.** | D | **41.** | B |
| **8.** | D | **25.** | B | **42.** | B |
| **9.** | C | **26.** | 16 | **43.** | D |
| **10.** | D | **27.** | 0.60 | **44.** | D |
| **11.** | A | **28.** | 6.00 | **45.** | A |
| **12.** | B | **29.** | 5 | **46.** | A |
| **13.** | C | **30.** | 5.00 | **47.** | C |
| **14.** | A | **31.** | 145 | **48.** | D |
| **15.** | D | **32.** | 0.92 | **49.** | 5 |
| **16.** | C | **33.** | 9.00 | **50.** | 6 |
| **17.** | A | **34.** | 5 | | |

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