MANITOBA INTRODUCTION TO APPLIED AND PRE-CALCULUS MATHEMATICS 20S · 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 **Use pi equals 3.14. A circle has radius 3. Its area, to two decimal places, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A right triangle has legs 3 and 4. Its hypotenuse is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **Two numbers add to 10 and subtract to 12. The larger number is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **Evaluate a x + b when a = 3 , b = 13 , and x = 9 . The result is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **Let f(x) = 2x + 5 and g(x) = 3x + 4 . The value of f(g(4)) is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **Two numbers add to 14 and subtract to 2. The larger number is**

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **A rectangle has length 13 and width 8. Its area is**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **A polygon with five sides is a**

- A hexagon
- B octagon
- C heptagon
- D pentagon

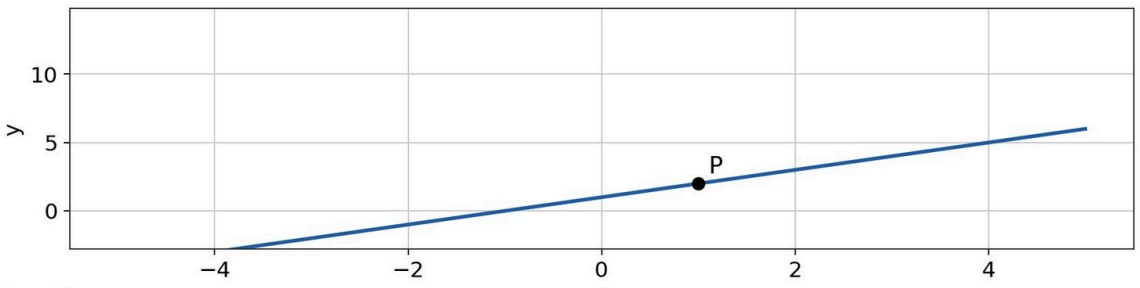
Understand It with Pulse | Flag a mistake

9 **Solve for x. The value of x is 2x + 10 = 20**

ANSWER _____

Understand It with Pulse | Flag a mistake

10 **The graph shows y = 1x + 1 . The value of f(1) is**



ANSWER _____

Understand It with Pulse | Flag a mistake

11 **A polygon with six sides is a**

A hexagon

B pentagon

C octagon

D decagon

Understand It with Pulse | Flag a mistake

12 **Solve for x. The value of x is 5x + 3 = 48**

ANSWER _____

Understand It with Pulse | Flag a mistake

13 **On a map, 1 unit represents 20 units in real life. A map distance of 4 represents a real distance of**

ANSWER _____

Understand It with Pulse | Flag a mistake

14 The distance around a circle is the

A diameter

B radius

C circumference

D area

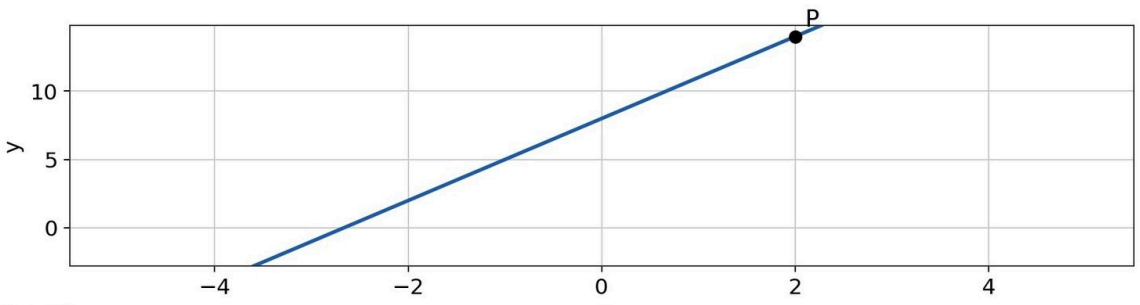
Understand It with Pulse | Flag a mistake

15 A line passes through (1, 7) and (3, 9). Its slope is

ANSWER _____

Understand It with Pulse | Flag a mistake

16 The graph shows y = 3x + 8 . The value of f(2) is



ANSWER _____

Understand It with Pulse | Flag a mistake

17 **In the expression 3x plus 5, the number 3 is the**

A constant

B coefficient

C variable

D solution

Understand It with Pulse | Flag a mistake

18 **A line passes through (2, 10) and (5, 19). Its slope is**

ANSWER _____

Understand It with Pulse | Flag a mistake

19 **The value that makes an equation true is called the**

A solution

B coefficient

C variable

D expression

Understand It with Pulse | Flag a mistake

20 **The point where a graph crosses the y axis is the**

A x intercept

B vertex

C y intercept

D origin

Understand It with Pulse | Flag a mistake

21 **A triangle with all sides equal is**

A equilateral

B isosceles

C scalene

D right

Understand It with Pulse | Flag a mistake

22 **The line that divides a parabola into two equal halves is the**

A directrix

B axis of symmetry

C asymptote

D tangent

Understand It with Pulse | Flag a mistake

23 **Let f(x) = 2x + 4 . The inverse function at 10 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **A polygon with eight sides is an**

A hexagon

B pentagon

C decagon

D octagon

Understand It with Pulse | Flag a mistake

25 **In the expression 3x plus 5, the letter x is the**

A coefficient

B constant

C variable

D term

Understand It with Pulse | Flag a mistake

26 **The right triangle has legs 9 and 12 as labelled. Its hypotenuse is**

ANSWER _____

Understand It with Pulse | Flag a mistake

27 **A triangle with two sides equal is**

A equilateral

B isosceles

C scalene

D obtuse

Understand It with Pulse | Flag a mistake

28 **In a right triangle, the side opposite the right angle is the**

A adjacent

B opposite side

C hypotenuse

D base

Understand It with Pulse | Flag a mistake

29 **Let f(x) = 2x + 5 and g(x) = 3x + 6 . The value of f(g(4)) is**

ANSWER _____

Understand It with Pulse | Flag a mistake

30 **The sum of the interior angles of a quadrilateral is**

A 360 degrees

B 180 degrees

C 270 degrees

D 540 degrees

Understand It with Pulse | Flag a mistake

31 The point where a graph crosses the x axis is the

A y intercept

B x intercept

C vertex

D origin

Understand It with Pulse | Flag a mistake

32 In a right triangle with opposite 1 and hypotenuse 2, the ratio is

ANSWER _____

Understand It with Pulse | Flag a mistake

33 A line passes through (1, 7) and (5, 11). Its slope is

ANSWER _____

Understand It with Pulse | Flag a mistake

34 **An arithmetic sequence starts at 9 and increases by 5 each term. Term 8 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

35 **Let f(x) = 4x + 6 . The inverse function at 30 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

36 **A line passes through (2, 10) and (3, 13). Its slope is**

ANSWER _____

Understand It with Pulse | Flag a mistake

37 **A rectangle has length 11 and width 5. Its area is**

ANSWER _____

Understand It with Pulse | Flag a mistake

38 **The right triangle has legs 7 and 24 as labelled. Its hypotenuse is**

ANSWER _____

Understand It with Pulse | Flag a mistake

39 **An arithmetic sequence starts at 7 and increases by 5 each term. Term 10 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

40 **Two numbers add to 36 and subtract to 2. The larger number is**

ANSWER _____

Understand It with Pulse | Flag a mistake

41 **The longest side of a right triangle is the**

- A adjacent
- B opposite
- C leg
- D hypotenuse

Understand It with Pulse | Flag a mistake

42 **An arithmetic sequence starts at 9 and increases by 2 each term. Term 5 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

43 **On a map, 1 unit represents 25 units in real life. A map distance of 5 represents a real distance of**

ANSWER _____

Understand It with Pulse | Flag a mistake

44 **The slope of a vertical line is**

A zero

B one

C negative

D undefined

Understand It with Pulse | Flag a mistake

45 **Half of the diameter of a circle is the**

A circumference

B radius

C chord

D arc

Understand It with Pulse | Flag a mistake

46 **An angle measuring less than 90 degrees is an**

A obtuse angle

B right angle

C acute angle

D reflex angle

Understand It with Pulse | Flag a mistake

47 **Evaluate $f(x) = a\,x^2 + b\,x + c$ when $a = 1$, $b = 5$, $c = 1$, and $x = 4$. The result is**

ANSWER _____

Understand It with Pulse | Flag a mistake

48 **Solve for x. The value of x is $4x + 12 = 32$**

ANSWER _____

Understand It with Pulse | Flag a mistake

49 **The sum of the interior angles of a triangle is**

A 90 degrees

B 270 degrees

C 360 degrees

D 180 degrees

Understand It with Pulse | Flag a mistake

50 **Two lines that meet at a right angle are**

A parallel

B perpendicular

C coincident

D skew

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	28.26	**18.**	3	**35.**	6
2.	5	**19.**	A	**36.**	3
3.	11	**20.**	C	**37.**	55
4.	40	**21.**	A	**38.**	25
5.	37	**22.**	B	**39.**	52
6.	8	**23.**	3	**40.**	19
7.	104	**24.**	D	**41.**	D
8.	D	**25.**	C	**42.**	17
9.	5	**26.**	15	**43.**	125
10.	2	**27.**	B	**44.**	D
11.	A	**28.**	C	**45.**	B
12.	9	**29.**	41	**46.**	C
13.	80	**30.**	A	**47.**	37
14.	C	**31.**	B	**48.**	5
15.	1	**32.**	0.5	**49.**	D
16.	14	**33.**	1	**50.**	B
17.	B	**34.**	44		

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