

Brett Robbins Academic Consulting

Mathematics 10C Practice Test

Unit 5: Linear Functions

10 Questions

Original practice questions written to the Alberta curriculum, in the style of past diploma examinations. Work through each question, then check your answers with the key at the end.

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, contact Brett for clarification.

Question 1

A line rises 6 units for every 2 units it runs to the right.

The slope of the line is

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

Question 2

The slope of the line passing through the points (1, 3) and (4, 9) is

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

Question 3

For the line with equation $y = -4x + 7$, the slope and the y-intercept are

- A) Slope : 4
y - intercept : 7
- B) Slope : -4
y - intercept : 7
- C) Slope : -4
y - intercept : -7
- D) Slope : 7
y - intercept : -4

Question 4

The slope of the line passing through the points $(-2, 5)$ and $(3, 5)$ is

- A) undefined
- B) 1
- C) 0
- D) 5

Question 5

The graph of a line rises from left to right and crosses the y -axis at -3 .

An equation of this line could be

- A) $y = -2x - 3$
- B) $y = 2x + 3$
- C) $y = -3x + 2$
- D) $y = 2x - 3$

Question 6

An equation of the line with slope 3 that passes through the point $(2, -1)$ is

- A) $y = 3x - 7$
- B) $y = 3x + 5$
- C) $y = 3x - 1$
- D) $y = -3x + 5$

Question 7

The y -intercept of the line with equation $3x + 4y = 24$ is ____

Question 8

The equation $2x - y + 6 = 0$ written in slope – intercept form is

- A) $y = 2x + 6$
- B) $y = -2x + 6$
- C) $y = 2x - 6$
- D) $y = x + 6$

Question 9

A line that is parallel to the line with equation $3x + 2y = 6$ is

A) $y = \frac{2}{3}x - 1$

B) $y = -\frac{3}{2}x + 4$

C) $y = \frac{3}{2}x + 1$

D) $y = -\frac{2}{3}x + 5$

Question 10

A line has a slope of $-\frac{2}{3}$. The slope of a line perpendicular to it is

A) $-\frac{3}{2}$

B) $\frac{2}{3}$

C) $-\frac{2}{3}$

D) $\frac{3}{2}$

Answer Key

- | | | |
|------|------|-------|
| 1. A | 5. D | 9. B |
| 2. C | 6. A | 10. D |
| 3. B | 7. 6 | |
| 4. C | 8. A | |

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