SASKATCHEWAN WORKPLACE AND APPRENTICESHIP MATHEMATICS 20 · UNIT B · 25 QUESTIONS

Right Triangles, Slope and Rate of Change — 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 **A ramp rises 5 m over a horizontal run of 10 m. Its slope is**

- **A** $\frac{1}{2}$
- **B** 2
- **C** $\frac{3}{2}$
- **D** $\frac{5}{11}$

Understand It with Pulse | Flag a mistake

2 A ramp rises 2 m over a horizontal run of 5 m. Its slope is

- **A** $\frac{5}{2}$
- **B** $\frac{2}{5}$
- **C** $\frac{7}{5}$
- **D** $\frac{1}{3}$

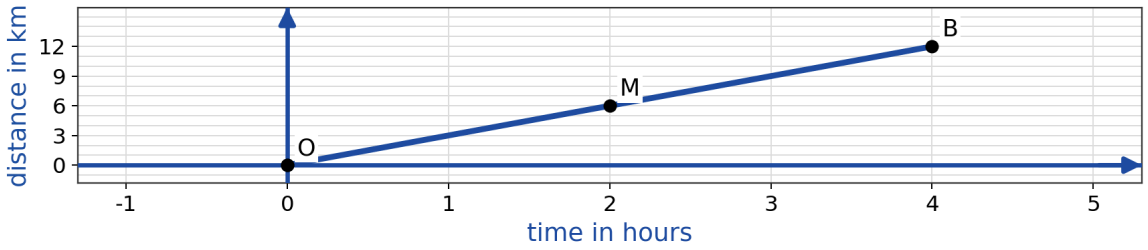
Understand It with Pulse | Flag a mistake

3 A car travels 100 km in 2 hours. Its average rate of change of distance, in kilometres per hour, is

ANSWER _____

Understand It with Pulse | Flag a mistake

4 The graph shows distance against time for a cyclist. The rate of change between 0 hours and 4 hours, in kilometres per hour, is



ANSWER

Understand It with Pulse | Flag a mistake

5 A right triangle has legs 6 and 8. The hypotenuse is

ANSWER

Understand It with Pulse | Flag a mistake

6 A car travels 150 km in 3 hours. Its average rate of change of distance, in kilometres per hour, is

ANSWER

Understand It with Pulse | Flag a mistake

7 **A car travels 80 km in 2 hours. Its average rate of change of distance, in kilometres per hour, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **A line passes through (3, 0) and (5, 2). Its slope is**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **A right triangle has legs 8 and 15. The hypotenuse is**

ANSWER _____

Understand It with Pulse | Flag a mistake

10 A ramp rises 6 m over a horizontal run of 8 m. Its slope is

- **A** $\frac{4}{3}$
- **B** $\frac{7}{4}$
- **C** $\frac{3}{4}$
- **D** $\frac{2}{3}$

Understand It with Pulse | Flag a mistake

11 A line passes through (0, 1) and (5, 11). Its slope is

ANSWER _____

Understand It with Pulse | Flag a mistake

12 A right triangle has legs 7 and 24. The hypotenuse is

ANSWER _____

Understand It with Pulse | Flag a mistake

13 **A line passes through (0, 3) and (2, 5). Its slope is**

ANSWER _____

Understand It with Pulse | Flag a mistake

14 **The slope of a line that rises 3 units for every 4 units it runs is**

ANSWER _____

Understand It with Pulse | Flag a mistake

15 **A staircase rises 2 metres over a run of 4 metres. Its slope as a decimal is**

ANSWER _____

Understand It with Pulse | Flag a mistake

16 **A line has slope 2 and passes through (0, 1). The y value when x is 3 is**

ANSWER _____

Understand It with Pulse | Flag a mistake

17 **Two points on a line are (1, 2) and (4, 8). The rate of change of y with respect to x is**

ANSWER

Understand It with Pulse | Flag a mistake

18 **A roof rises 6 metres over a horizontal distance of 12 metres. The slope of the roof is**

A 0.5

B 2

C 6

D 12

Understand It with Pulse | Flag a mistake

19 **A line with a negative slope goes**

- A up from left to right
- B down from left to right
- C straight across
- D straight up

Understand It with Pulse | Flag a mistake

20 **The graph of distance against time for a car is a straight line from (0, 0) to (2, 100). The speed of the car, in kilometres per hour, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

21 **A wheelchair ramp must have a slope of 1 to 12. A ramp that rises 1 metre must run at least, in metres,**

ANSWER _____

Understand It with Pulse | Flag a mistake

22 A cyclist travels 60 kilometres in 3 hours. Her average speed, in kilometres per hour, is

ANSWER _____

Understand It with Pulse | Flag a mistake

23 Water flows into a tank at 5 litres per minute. After 12 minutes, the volume in the tank, in litres, is

ANSWER _____

Understand It with Pulse | Flag a mistake

24 A ramp rises 3 metres over a run of 6 metres. Its slope as a fraction is

A $\frac{3}{2}$

B $\frac{1}{2}$

C 2

D 3

Understand It with Pulse | Flag a mistake

25 **A ladder leans against a wall. Its foot is 6 metres from the wall and it reaches 8 metres up the wall. The length of the ladder, in metres, is**

ANSWER

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	A	**10.**	C	**19.**	B
2.	B	**11.**	2	**20.**	50
3.	50	**12.**	25	**21.**	12
4.	3	**13.**	1	**22.**	20
5.	10	**14.**	0.75	**23.**	60
6.	50	**15.**	0.5	**24.**	B
7.	40	**16.**	7	**25.**	10
8.	1	**17.**	2		
9.	17	**18.**	A		

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