NUNAVUT MATH 20-3 · UNIT 4 · 25 QUESTIONS

Formulas, Slope and Proportional Reasoning — 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 **The area of a rectangle is given by A = lw. Rearranged to solve for w, the formula is**

- **A** $w = Al$
- **B** $w = \frac{A}{}$
- **C** $w = \frac{l}{}$
- **D** $w = A - l$

Understand It with Pulse | Flag a mistake

2 **The perimeter of a rectangle is given by $P = 2l + 2w$. Rearranged to solve for l, the formula is**

- **A** $l = P - 2w$
- **B** $l = \underline{P - 2w}$
- **C** $l = \underline{P + 2w}$
- **D** $l = 2(P - w)$

Understand It with Pulse | Flag a mistake

3 **Temperatures are converted using $F = \frac{9}{5}C + 32$. Rearranged to solve for C, the formula is**

- **A** $C = \underline{9}$
- **B** $C = \underline{5}$
- **C** $C = \underline{5}$
- **D** $C = \underline{9}$

Understand It with Pulse | Flag a mistake

4 **Distance is given by d = rt. A delivery van travels at 80 km/h for 2.5 h. The distance travelled is**

- A 32 km
- B 82.5 km
- C 160 km
- D 200 km

Understand It with Pulse | Flag a mistake

5 **In an electrical circuit, V = IR. The voltage is 24 V and the resistance is 6 ohms. The current is**

- A 4 A
- B 144 A
- C 30 A
- D 0.25 A

Understand It with Pulse | Flag a mistake

6 **Body mass index is given by BMI = $\frac{m}{h^2}$, where m is mass in kilograms and h is height in metres. For m = 70 kg and h = 1.75 m, the BMI, to the nearest tenth, is**

- **A** 40.0
- **B** 22.9
- **C** 214.4
- **D** 122.5

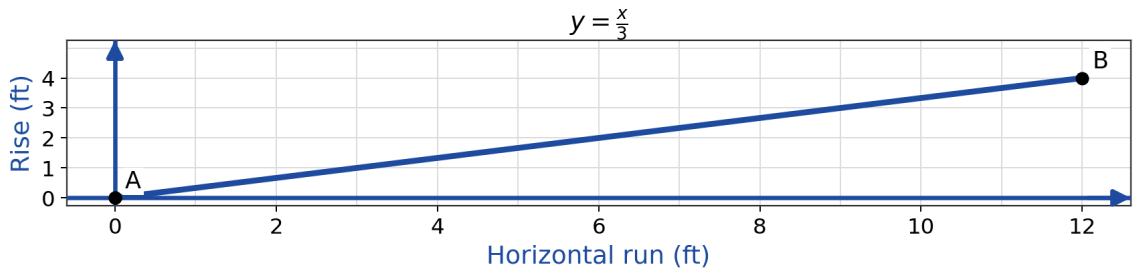
Understand It with Pulse | Flag a mistake

7 **The area of a triangle is given by A = $\frac{1}{2}$bh. Rearranged to solve for h, the formula is**

- **A** h = $\frac{A}{}$
- **B** h = $\frac{A}{}$
- **C** h = $\frac{2A}{}$
- **D** h = $\frac{b}{}$

Understand It with Pulse | Flag a mistake

8 **The graph shows a roof line, with points A and B marked. The slope of the roof, as rise over run, is**



A 3

B 8

C 48

D $\frac{1}{}$

Understand It with Pulse | Flag a mistake

9 **A wheelchair ramp rises 0.75 m over a run of 15 m. The grade of the ramp, as a percent, is**

- **A** 5%
- **B** 20%
- **C** 0.05%
- **D** 7.5%

Understand It with Pulse | Flag a mistake

10 **A 500 g bag of rice costs $4.00. The unit price per 100 g is**

- **A** $1.25
- **B** $0.80
- **C** $20.00
- **D** $0.08

Understand It with Pulse | Flag a mistake

11 **A car uses 45 L of fuel to travel 600 km. Its fuel consumption, in litres per 100 km, is**

- A 13.3 L/100 km
- B 75.0 L/100 km
- C 7.5 L/100 km
- D 0.75 L/100 km

Understand It with Pulse | Flag a mistake

12 **A recipe for 4 servings uses 300 mL of milk. The amount of milk needed for 10 servings is**

- A 120 mL
- B 600 mL
- C 900 mL
- D 750 mL

Understand It with Pulse | Flag a mistake

13 **The density of a material is given by $d = \frac{m}{V}$. Rearranged to solve for V, the formula is**

- **A** $V = \frac{m}{}$
- **B** $V = md$
- **C** $V = \frac{d}{}$
- **D** $V = m - d$

Understand It with Pulse | Flag a mistake

14 **A bus travels 150 km in 2 h at a steady speed. At the same speed, the distance it travels in 5 h is**

- **A** 60 km
- **B** 375 km
- **C** 300 km
- **D** 750 km

Understand It with Pulse | Flag a mistake

15 **At an exchange counter, $5 US is worth $6.75 Canadian. The value of $20 US, in Canadian dollars, is**

- A $14.81
- B $26.75
- C $27.00
- D $135.00

Understand It with Pulse | Flag a mistake

16 **The area of a circle is given by $A = \pi r^2$. Use $\pi = 3.14$. For a radius of 5 cm, the area is**

- A 31.4 cm^2
- B 15.7 cm^2
- C 157.0 cm^2
- D 78.5 cm^2

Understand It with Pulse | Flag a mistake

17 **Simple interest is given by I = Prt. Rearranged to solve for r, the formula is**

- **A** $r = \frac{I}{}$
- **B** r = IPt
- **C** $r = \frac{Pt}{}$
- **D** r = I - Pt

Understand It with Pulse | Flag a mistake

18 **Temperatures are converted using $F = \frac{9}{5}C + 32$. A temperature of 25°C is equal to**

- **A** 45.0°F
- **B** 77.0°F
- **C** 57.0°F
- **D** 45.9°F

Understand It with Pulse | Flag a mistake

19 **A worker earns $450 for 30 h of work. Her hourly rate of pay is**

- **A** $420.00 per hour
- **B** $13500.00 per hour
- **C** $15.00 per hour
- **D** $480.00 per hour

Understand It with Pulse | Flag a mistake

20 **The perimeter of a square is given by P = 4s. Rearranged to solve for s, the formula is**

- **A** $s = 4P$
- **B** $s = P - 4$
- **C** $s = \frac{4}{}$
- **D** $s = \frac{P}{}$

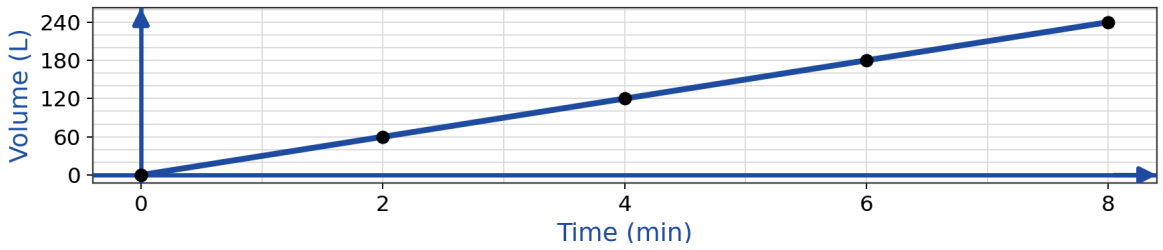
Understand It with Pulse | Flag a mistake

21 **One litre of paint covers 12 m². The number of litres needed to cover a wall of 42 m² is**

- **A** 3.5 L
- **B** 504 L
- **C** 0.29 L
- **D** 30 L

Understand It with Pulse | Flag a mistake

22 **The graph shows water added to a tank over time. The rate of flow, as a rate of change, is**



- **A** 0.03 L/min
- **B** 30 L/min
- **C** 248 L/min
- **D** 1920 L/min

Understand It with Pulse | Flag a mistake

23 **In an electrical circuit, V = IR. The voltage is 120 V and the current is 10 A. The resistance is**

- A 1200 ohms
- B 110 ohms
- C 12 ohms
- D 130 ohms

Understand It with Pulse | Flag a mistake

24 **On a scale drawing, 1 cm represents 2.5 m. A wall drawn 6 cm long has an actual length of**

- A 2.4 m
- B 3.5 m
- C 8.5 m
- D 15 m

Understand It with Pulse | Flag a mistake

25 **Electrical power is given by $P = \frac{W}{t}$, where W is work and t is time. Rearranged to solve for W, the formula is**

A $W = Pt$

B $W = \frac{P}{}$

C $W = \frac{t}{}$

D $W = P - t$

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

© 2026 Brett Robbins. All Rights Reserved.