ALBERTA MATH 20-3 · UNIT 4 · 10 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 **A carton of 12 eggs costs $3.60. The price per egg is**

- A $3.33
- B $43.20
- C $0.30
- D $0.03

Understand It with Pulse | Flag a mistake

2 **A train travels at a steady speed of 90 km/h. The distance it travels in 40 min is**

- A 135 km
- B 36 km
- C 50 km
- D 60 km

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3 **The area of a square tile is given by $A = s^2$. If the area is 64 cm^2, the side length is**

- A 8 cm
- B 32 cm
- C 4096 cm
- D 16 cm

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4 **A photograph 15 cm tall is enlarged by a scale factor of 1.5. The height of the enlarged photograph is**

- **A** 10.0 cm
- **B** 22.5 cm
- **C** 16.5 cm
- **D** 150 cm

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5 **Body mass index is given by BMI = $\frac{m}{h^2}$, so m = BMI × h². For a BMI of 24 and a height of 1.70 m, the mass, to the nearest tenth of a kilogram, is**

- **A** 40.8 kg
- **B** 14.1 kg
- **C** 69.4 kg
- **D** 8.3 kg

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6 **A muffin recipe uses 2 cups of flour to make 12 muffins. The amount of flour needed to make 30 muffins is**

- A 0.8 cups
- B 4 cups
- C 6 cups
- D 5 cups

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7 **In an electrical circuit, V = IR. A heater draws a current of 3 A through a resistance of 20 ohms. The voltage is**

- A 60 V
- B 6.67 V
- C 23 V
- D 0.15 V

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8 **A car travels 400 km on 32 L of fuel. At the same rate, the distance it can travel on 40 L is**

- **A** 320 km
- **B** 500 km
- **C** 432 km
- **D** 12800 km

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9 **A building code requires a ramp slope no steeper than $\frac{1}{12}$. The graph shows a ramp, with points A and B marked. Which statement about this ramp is correct?**

- **A** Its slope is 12, so it is too steep
- **B** Its slope is $\frac{1}{6}$, so it is too steep
- **C** Its slope is $\frac{1}{12}$, so it meets the requirement exactly
- **D** Its slope is $\frac{1}{12}$, so it does not meet the requirement

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10 **A plumber charges using C = 45 + 30h, where C is the cost in dollars and h is the number of hours. The cost for 4 h of work is**

A $120.00

B $300.00

C $79.00

D $165.00

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ANSWER KEY

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

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