ALBERTA MATH 20-3 · UNIT 2 · 10 QUESTIONS

Trigonometry, Scale and 3-D Objects — 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 makes an angle of 15° with the horizontal. The horizontal distance it covers is 5.0 m. The length of the ramp, to the nearest tenth, is**

- **A** 4.8 m
- **B** 5.2 m
- **C** 1.3 m
- **D** 19.3 m

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2 **A surveyor stands 30 m from the base of a building on level ground. The angle of elevation to the top of the building is 35°. The height of the building, to the nearest tenth, is**

- A 17.2 m
- B 24.6 m
- C 21.0 m
- D 42.8 m

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3 **A cube-shaped box is modelled with a linear scale factor of 4 from the model to the actual box. The actual volume is how many times the model volume?**

- A 4
- B 12
- C 16
- D 64

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4 **In the right triangle shown, the legs are 9 in. and 12 in. The length of the hypotenuse is**

- **A** 10.5 in.
- **B** 15 in.
- **C** 21 in.
- **D** 7.9 in.

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5 **A building 18 m tall casts a shadow 24 m long on level ground. The angle of elevation of the sun, to the nearest tenth of a degree, is**

- **A** 53.1°
- **B** 48.6°
- **C** 36.9°
- **D** 41.4°

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6 **A carpenter needs a drawing of a cabinet that shows its width and its height, but not its depth. Which view should the carpenter use?**

- A The top view
- B The exploded view
- C The side view from the left end only
- D The front view

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7 **On a scale diagram, 1 cm represents 3 m. A rectangular yard is drawn with a perimeter of 20 cm. The actual perimeter of the yard is**

- A 6.7 m
- B 60 m
- C 40 m
- D 180 m

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8 **A support wire runs from the top of a 12 ft pole to the ground, making an angle of 45° with the ground. The length of the wire, to the nearest tenth, is**

- A 17.0 ft
- B 8.5 ft
- C 12.0 ft
- D 24.0 ft

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9 **A long, low storage bench is a rectangular prism. Its front view shows which two measurements of the bench?**

- A Its depth and its height
- B Its length and its depth
- C Its length and its height
- D Its depth only

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10 **A diagonal brace is 8.0 m long and makes an angle of 25° with the horizontal. The horizontal distance it spans, to the nearest tenth, is**

- A 3.4 m
- B 3.7 m
- C 8.8 m
- D 7.3 m

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ANSWER KEY

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

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