BRITISH COLUMBIA WORKPLACE MATHEMATICS 11 (MWPM-11) · UNIT D · 25 QUESTIONS

# 3D Objects and Scale Diagrams — 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 volume of a cube with side length 4 cm is**

- A 16 $cm^3$
- B 24 $cm^3$
- C 48 $cm^3$
- D 64 $cm^3$

Understand It with Pulse | Flag a mistake

**2** **The surface area of a cube with side length 3 cm is**

- A 18 $cm^2$
- B 27 $cm^2$
- C 36 $cm^2$
- D 54 $cm^2$

Understand It with Pulse | Flag a mistake

**3** **A rectangular prism is 5 cm long, 4 cm wide and 3 cm high. Its volume is**

- A 47 $cm^3$
- B 60 $cm^3$
- C 94 $cm^3$
- D 120 $cm^3$

Understand It with Pulse | Flag a mistake

**4** **A rectangular prism is 5 cm long, 4 cm wide and 3 cm high. Its surface area is**

- **A** 47 $cm^2$
- **B** 60 $cm^2$
- **C** 94 $cm^2$
- **D** 120 $cm^2$

Understand It with Pulse | Flag a mistake

**5** **The volume of a cylinder with radius 2 cm and height 5 cm is**

- **A** $10\pi$ $cm^3$
- **B** $20\pi$ $cm^3$
- **C** $40\pi$ $cm^3$
- **D** $100\pi$ $cm^3$

Understand It with Pulse | Flag a mistake

6 **The surface area of a cylinder with radius 3 cm and height 4 cm is**

- A $24\pi$ cm²
- B $36\pi$ cm²
- C $42\pi$ cm²
- D $48\pi$ cm²

Understand It with Pulse | Flag a mistake

7 **The volume of a sphere with radius 3 cm is**

- A $12\pi$ cm³
- B $27\pi$ cm³
- C $36\pi$ cm³
- D $108\pi$ cm³

Understand It with Pulse | Flag a mistake

**8** **The volume of a cone with radius 3 cm and height 4 cm is**

- A $12\pi$ cm³
- B $16\pi$ cm³
- C $36\pi$ cm³
- D $48\pi$ cm³

Understand It with Pulse | Flag a mistake

**9** **A triangular prism has a triangular base of area 12 cm² and length 10 cm. Its volume is**

- A 60 cm³
- B 120 cm³
- C 240 cm³
- D 1200 cm³

Understand It with Pulse | Flag a mistake

10 **How many faces does a rectangular prism have?**

A 4

B 5

C 6

D 8

Understand It with Pulse | Flag a mistake

11 **How many edges does a cube have?**

A 6

B 8

C 12

D 16

Understand It with Pulse | Flag a mistake

12 **A net of a cube must have how many squares?**

- A 4
- B 5
- C 6
- D 8

Understand It with Pulse | Flag a mistake

13 **Which net folds to make a cube?**

- A Six squares in a cross shape
- B Five squares in a row
- C Seven squares in a cross shape
- D Four squares and two triangles

Understand It with Pulse | Flag a mistake

14 **A net made of two circles and one rectangle folds to make a**

A cylinder

B cone

C sphere

D cube

Understand It with Pulse | Flag a mistake

15 **A scale of 1:50000 means 1 cm on a map stands for**

A 50 m

B 500 m

C 5 km

D 50 km

Understand It with Pulse | Flag a mistake

16 **On a 1:50000 map, a road drawn 4 cm long is really**

- A 200 m
- B 2 km
- C 20 km
- D 200 km

Understand It with Pulse | Flag a mistake

17 **A model built at a scale of 1:24 of a 12 m long truck is**

- A 0.25 m long
- B 0.5 m long
- C 2 m long
- D 24 m long

Understand It with Pulse | Flag a mistake

**18** **A drawing is 8 cm long and the real object is 4 m long. The scale is**

- A 1:5
- B 1:20
- C 1:50
- D 1:80

Understand It with Pulse | Flag a mistake

**19** **If a length is enlarged by a scale factor of 3, a 5 cm length becomes**

- A 8 cm
- B 15 cm
- C 30 cm
- D 45 cm

Understand It with Pulse | Flag a mistake

**20** If a length is reduced by a scale factor of $\frac{1}{4}$, a 20 cm length becomes

- A 4 cm
- B 5 cm
- C 10 cm
- D 80 cm

Understand It with Pulse | Flag a mistake

**21** The triangle has legs 6 cm and 8 cm. Its hypotenuse is

- A 10 cm
- B 12 cm
- C 14 cm
- D 48 cm

Understand It with Pulse | Flag a mistake

**22** The triangle is enlarged by a scale factor of 2. The 5 cm side becomes

- A 7 cm
- B 10 cm
- C 12 cm
- D 25 cm

Understand It with Pulse | Flag a mistake

**23** When a solid is enlarged by a scale factor of 2, its volume is multiplied by

- A 2
- B 4
- C 6
- D 8

Understand It with Pulse | Flag a mistake

24 **When a shape is enlarged by a scale factor of 3, its area is multiplied by**

- A 3
- B 6
- C 9
- D 27

Understand It with Pulse | Flag a mistake

25 **A scale drawing of a room uses 1 cm to 2 m. A wall drawn 6 cm long is really**

- A 3 m
- B 8 m
- C 12 m
- D 24 m

Understand It with Pulse | Flag a mistake

# ANSWER KEY

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

© 2026 Brett Robbins. All Rights Reserved.