

Name _____

Date _____

VERTEXMATH · BUILD YOUR OWN · MTH1W GRADE 9

Geometry and Measurement: your summary

1 Fill in every blank from memory. No notes.**2** Check it against the Unit Summary in a different colour.**3** Tick ✓ or X on each card. Every X is a topic to review.vertexmath.ca
Worksheet, answers &
this cheat sheet

Which measure?

Write the tool for each case.

Fencing a garden

Painting a wall

Filling a pool

1 Angle pairs☒ ☒**1** Find the complement and the supplement of 27° .**2** Two parallel lines: co-interior angles measure $(2x + 10)^\circ$ and $(3x - 5)^\circ$. Find x .**2** Triangle angles☒ ☒**3** Exterior angle 138° , one interior angle not next to it 65° . Find the other two.**3** Polygon and circle angles☒ ☒**4** Find each interior angle of a regular 12-sided polygon.**5** An inscribed angle is 47° . Find the central angle on the same arc.**4** Pythagorean theorem☒ ☒**6** Legs 9 cm and 40 cm: find the hypotenuse.**7** A rectangle is 20 cm wide with a 29 cm diagonal. Find its length.**5** Area of polygons☒ ☒**8** A trapezoid has parallel sides 7 m and 13 m and a height of 4 m. Find its area.**6** Circles☒ ☒**9** A circular rink has a diameter of 26 m. Find its circumference and area.**10** Find the perimeter of a semicircle of radius 3 m.**7** Surface area☒ ☒**11** Cylinder, radius 3 cm, height 8 cm: find its surface area.**8** Volume☒ ☒**12** Square-based pyramid: base edge 6 m, height 7 m. Find its volume.**9** Changing dimensions☒ ☒**13** Every length of a box is tripled. What happens to its surface area and volume?

My traps

 Your three most likely mistakes, and how you will catch each one.**1** _____ **2** _____ **3** _____

Answers to the numbered prompts. Cover this strip until you are done.

- 1** 63° and 153°
2 $5x + 5 = 180$, $x = 35$
3 73° and 42°
4 $1800^\circ \div 12 = 150^\circ$
5 94°
6 41 m
7 $\sqrt{841 - 400} = 21$ cm
8 40 m²
9 ≈ 81.7 m; ≈ 530.9 m²
10 $3\pi + 6 \approx 15.4$ m
11 $66\pi \approx 207.3$ cm²
12 84 m³
13 $9; \times 27$