



Nets and surface area

GRADE 6 MATH

Name _____

Date _____

Work in order. Sketch the net or list all the faces with their areas, then total them; answers in the boxes with square units. One skill: **nets and surface area**.

WORKED EXAMPLE

Surface area = the area of the whole net. A rectangular prism has **6** faces in 3 matching pairs: $SA = 2(lw) + 2(lh) + 2(wh)$. A cube is the special case: $SA = 6s^2$. Square units, always — you are covering, not filling.

1. Find the surface area of a cube with edge 2 units.

FLUENCY

Show your thinking

Answer

2. Find the surface area of a prism 3 by 3 by 5 units.

FLUENCY

Show your thinking

Answer

3. Find the surface area of a cube with edge 5 units.

FLUENCY

Show your thinking

Answer

4. Find the surface area of a prism 6 by 4 by 2 units.

APPLICATION

Show your thinking

Answer

5. Find the surface area of a prism 8 by 3 by 3 units.

APPLICATION

Show your thinking

Answer

6. A triangular prism has two triangular ends with base 6 and height 4, and is 10 units long. Its three rectangular faces come from sides of 5, 5 and 6. Find the surface area.

Show your thinking

Answer

7. A student found the surface area of a 4 by 3 by 2 prism to be 26 square units. Find the correct answer and explain the mistake.

Show your thinking

Answer

8. A cube has edge 3 units. Find its surface area and its volume, and explain why the numbers are different.

Show your thinking

Answer

9. A cube has a surface area of 54 square units. Find its edge length and explain your reasoning.

REASONING

Show your thinking

Answer