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| Year  8 | Mathematics Practice Test –Volume and Surface Area | **Calculator Practice Test** |
|  | Name |  |

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| 1. | A right triangular prism is shown below. Which statement is true?  The prism has three triangular faces and two rectangular faces.  The prism has two triangular faces and two rectangular faces.  The prism has two triangular faces and three rectangular faces.  The prism has three triangular faces and three rectangular faces. |
| 2. | A cube has the net shown below. What is the total area of all the faces of the cube?  180 cm2 72 cm2 216 cm2 144 cm2 |
| 3. | Find the surface area of the rectangular prism shown below.  Surface area = m2 |
| 4. | A cardboard box, which is open at the top, has the measurements shown. What is the area of cardboard needed for the box?  28 800 cm2 21 600 cm2 14 400 cm2 16 800 cm2 |
| 5. | A ramp for a jump in a car show is in the shape of a right triangular prism and is made of plywood on all of its faces, including the bottom.  What area of plywood is needed to make the ramp?  Area of plywood = m2 |
| 6. | A bird house is made in the shape of a triangular prism. The triangle is isosceles. One end has a hole cut out of it which has an area of 40 cm2. The outside of the bird house is to be painted. What is the area to be painted?  800 cm2  580 cm2  840 cm2  640 cm2 |
| 7. | A cube has a volume of 216 000 **mm3**. What is its volume in **cm3**?  216 cm3 2 160 cm3 60 cm3  2.16 cm3 |
| 8. | One cubic centimetre holds one millilitre of water. How many litres of water would be held by a container which has a volume of 4 500 cm3?  45 litres 450 litres 4 500 litres 4.5 litres |
| 9. | The solid below is made up of identical small cubes. The volume of the entire solid is 56 cm3. What is the volume of one of the small cubes?  Volume of one cube = cm3 |
| 10. | What is the volume of the cube shown below?  900 cm3  27 000 cm3  54 000 cm3  45 000 cm3 |
| 11. | What is the volume of the prism shown?  216 m3  108 m3  480 m3  240 m3 |
| 12. | The tank shown is a square prism. It contains water to a depth of 1.2 m. If 1 m3 holds 1000 litres, how many kilolitres does the tank hold at the moment?    The tank holds kilolitres. |
| 13. | A two man tent has the measurements shown on the diagram. What is the volume of the tent in cubic metres?  (correct to one decimal place)  4.4 m3  1.7 m3  3.4 m3  2.2 m3 |
| 14. | Wedgie cheese is packed in the shape of the triangular prism shown.  What is the volume of a pack of Wedgie cheese?  450 cm3  900 cm3  510 cm3  487.5 cm3 |
| 15. | A plinth used to support a statue is a prism with its cross section the shape of a star. The area of the star is 700 cm2. The plinth is 45 cm tall and is made of marble. What volume of marble is needed for the plinth?  The volume of marble is cm3. |
| 16. | A garden shed has the measurements shown in the diagram.  What is the volume of the garden shed?  The volume is m3 |
| 17. | A can of baked beans is a cylinder with diameter 8 cm and depth 12  cm.  What is the volume of the can to the nearest 100cm3?  300 cm3  600 cm3  2 400 cm3  900 cm3 |
| 18. | A large can of baked beans is to hold 3 000 cm3.  The can has a diameter of 16cm.  What is the depth of this can to the nearest mm?  The depth is cm. |
| 19. | The reservoir on a water cooler is cylindrical with a radius of 36 cm and a depth of 60 cm.  1000 cm3 holds one litre of water.  How many litres does the reservoir hold?  It holds litres. |
| 20. | A lunchbox is a prism with its cross section shown below.  What is the volume of the lunch box?  4 850cm3  11 880 cm3  5 850 cm3  19 920 cm3 |