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| Year  10 | | Volume and Surface Area of Prisms Practice Test | | Calculator |
| Short Answer Section | Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | Write all working and answers in the spaces provided on this Practice Test paper. | | | |
| 1. | What is the volume of this cereal box?  ....................................................................  ....................................................................  ....................................................................  ....................................................................  .................................................................... | | | |
| 2. | What is the surface area of the cereal box in Question 1?  ..........................................................................................................................................................  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 3. | This tent is used at a cadet’s camp and is made of canvas.  Find the volume of air inside the tent.  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 4. | Find the area of canvas in the tent in question 3. There is no floor in the tent.  ..........................................................................................................................................................  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 5. | Find the surface area of the triangular prism shown?  ....................................................................  ....................................................................  ....................................................................  ....................................................................  .................................................................... | | | |
| 6. | Hay is bound in cylindrical bales.  What volume of hay is in the bale?  ....................................................................  ....................................................................  ....................................................................  ....................................................................  .................................................................... | | | |
| 7. | The bale in question 6 is to be covered in plastic to protect it from the weather. What area of plastic is needed for the bale?  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 8. | A bronze trophy is in the shape of a prism with a rhombus as its base.  The diagonals of the rhombus are 12 cm and 5 cm and the height of the trophy is 18 cm.  What volume of bronze is needed to make the trophy?  ..........................................................................................................................................................  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 9. | A barn has the dimensions shown.  What is the volume of air inside the barn?  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 10. | A jug for cordial is an elliptical prism, the ellipse having an area of 200 cm2. The height of the jug is 15 cm.  Given that 1 cm3 holds 1 ml, how many 250 mL glasses could be filled from the jug?  ..........................................................................................................................................................  ..........................................................................................................................................................    ..........................................................................................................................................................    .......................................................................................................................................................... | | | |

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| Year  10 | | Volume and Surface Area of Prisms Practice Test | | Calculator |
| Multiple Choice Section | Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | Mark all your answers on the accompanying multiple choice answer sheet, not on this Practice Test paper. You may do any working out on this Practice Test paper. Calculators are allowed for this section. | | | |
| 1. | How many square millimetres in 4 square centimetres?   1. 40 B. 400 C. 4000 D. 0.4 | | | |
| 2. | What is the volume of this rectangular prism?   1. 680 cm3 2. 1 360 cm3 3. 1 600 cm3 4. 3 200 cm3 | | | |
| 3. | What is the volume of this triangular prism?   1. 960 cm3 2. 1 600 cm3 3. 1 920 cm3 4. 3 840 cm3 | | | |
| 4. | What is the volume of the cylinder shown?  A. 2 262 m3 B. 36 191 m3 C. 2 369 m3 D. 9 048 m3 | | | |
| 5. | The surface area of the cube is   1. 25 cm 2. 25 cm2 3. 150 cm 4. 150 cm2 | | | |
| 6. | The open carton shown is used for packing fruit.  What is the surface area of the carton in square metres?  A. 0.2 m2 B. 1.6 m2  C. 2.1 m2 D. 0.8 m2 | | | |
| 7. | The surface area of the triangular prism is:  A. 672 m2    B. 576 m2    C. 960 m2  D. 512 m2 | | | |
| 8. | The water tank is in the shape of a prism.  The area of its cross section is 4.5 m2. If one cubic metre holds 1000 litres of water, how many litres does the tank hold?  A. 10.8 litres.    B. 33.9 litres.    C. 5 400 litres.  D. 10 800 litres. | | | |
| 9. | The industrial shed has 2 walls which are trapezoidal and 2 which are rectangular.    There is a steel door which has an area of 18 m2.  The walls are to be clad in fibre board.  What is the total wall area to be clad?  A. 348 m2. B. 588 m2. C. 910 m2. D. 928 m2. | | | |
| 10. | This carton is made to hold a child’s toy, and is made of plastic. Find the area of plastic in the carton.  A. 56 m2  B. 1 140 m2  C. 1 196 m2  D. 1 252 m2 | | | |

Volume and Surface Area of Prisms Practice Test

Multiple Choice Section

Answer Sheet

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Completely fill the response oval representing the most correct answer.

1. A B C D

2. A B C D

3. A B C D

4. A B C D

5. A B C D

6. A B C D

7. A B C D

8. A B C D

9. A B C D

10. A B C D