CBT-TEST PAPER #2

General Instructions:

Read the instructions below before answering the following questions.

1. This test contains 20 questions. Questions are taken from four strands: Number, Measurement, Geometry and Statistics & Probability. space is provided for you to answer each question.

2. Questions may be anyone of the following item type: Table Grid, Single/multiple Selected Response, complete work/explanation.

3. All questions must be answered in the provided space and remember to explain your answer where it is required.

4. Read each question carefully. Then answer questions based on instructions given.

5. For each question, where options are given to choose from, indicate the answer(s) you have selected for each question by circling the corresponding letter from the given options.

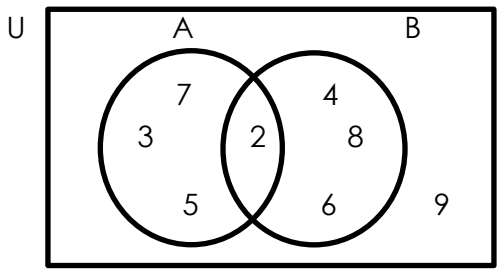
Answer ALL the questions as instructed.

Read each statement and question carefully before attempting to answer the following question.

1. Fill in the blank spaces below.

   Set _____ represents all the prime factors of 42 while Set _____ represents the first three factors of 42 that are greater than one.
   A = {2, 3, 6}
   B = {3, 6, 7}
   C = {3, 4, 7}
   D = {2, 3, 7}

   Use the Venn diagram below to answer question 2 and 3.



2. Which element is in the intersection of Set A and Set B? Write the sentence that represents your answer.

3. Complete the statement below by filling in the blank spaces.

The elements of Set A are all _____ numbers and the elements of Set B are _____ numbers.

4. Use the following information to complete the table below showing the set relations.

Set A = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10} **Set B = {2, 4, 6, 8, 10}**

Set C = {2, 3, 5, 7} **Set D = {1, 3, 5, 7, 9}**

Set	Symbol	Set	Elements
		B	{2,4,6,8,10}
B			{2,3,4,5,6,7,8,10}
		C	{}
C			{1,2,3,5,7,9}

5. Cheoma is a teaching practice at Shaoma Primary School. He is helping some grade five students to comprehend the concept of multiples of **two** and **five** during Mathematics class. Cheoma and the students are working with the numbers **2** to **20.**

   Using a Venn diagram, help Cheoma show the students a visual representation of the relationship of the numbers.

Mr. William is a member of the Army and believes his children should be fully aware and know how to use the 24 hours clock. Therefore, he got everything in his home along with his television to be programmed using the 24-hour clock.

Jenny, his daughter, got home from school and wanted to watch her favourite television show. She saw the following television schedule:

Show	Time
Stuck in the Middle	16:00 hours – 17:30 hours
Andi Mac	17:00 hours – 18:00 hours
It's a Different World	18:00 hours – 18:45 hours

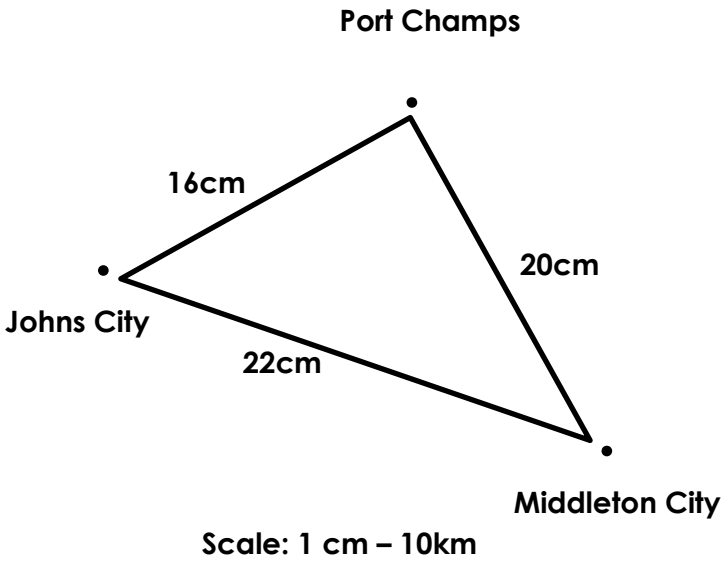
6. How long does 'Stuck in the Middle' last?

7. How long is 'It's a Different World'?

8. If Jenny watched all 3 shows in one sitting how long would she have been sitting in front the television.

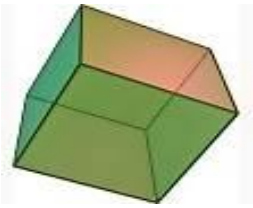
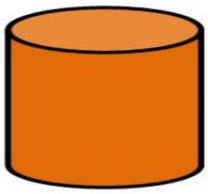
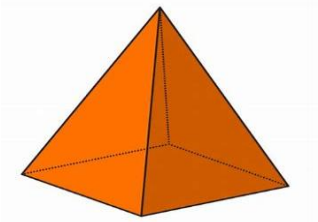
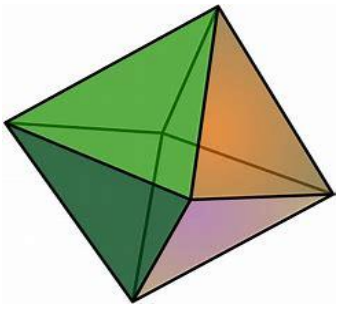
9. Which show is the shortest?

10. The diagram represents a road map.



Calculate the shortest distance, in km, from johns City to Middleton City.

11. After a quiz on solids, Marcus submitted the table below for his teacher to mark. You were then asked by the teacher to look at his work and make the necessary corrections, if any.

Solid Shape	Name of Solid	Correct (Yes/No)	If NO, Give correct Name
			
			
			
			
			

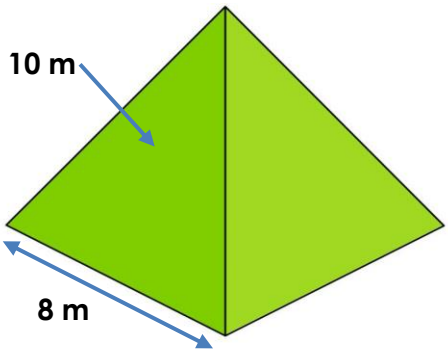
12. A rectangular prism 3cm by 4cm by 5cm is standing on its smallest face.

i. Make a sketch showing the three visible faces.

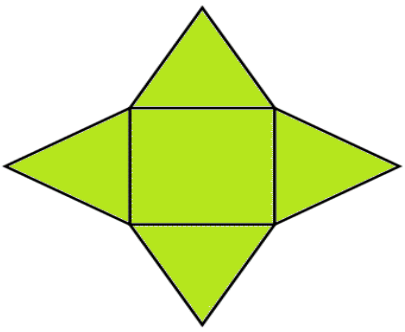
ii. Use lines to divide your sketch into 1cm cubes.

iii. How many 1cm cubes are in the shape?

13. What is the total surface area of the square pyramid below?



Square pyramid



net of the square pyramid

Total surface area = Area of square base + Area of 4 triangular faces

Area of square base = _____ x _____

= _____ m^2

Area of 4 triangular faces = 4 x ½ x Base x Height
= 4 x ½ x _____ x _____
= _____ m^2

Total surface area of square pyramid = _____ x _____
= _____ m^2

14. All the edges of a square prism are of the equal length. If the length of one of the edges is 9 metres, what is the total surface area of the square prism?

15. Mary has a cubical box with each side measuring 10 centimetres. She wants to cover the entire box with one layer of wrapping paper. If she has 1,000 square centimetres of wrapping paper, what is the greatest area of wrapping paper that she will have left?

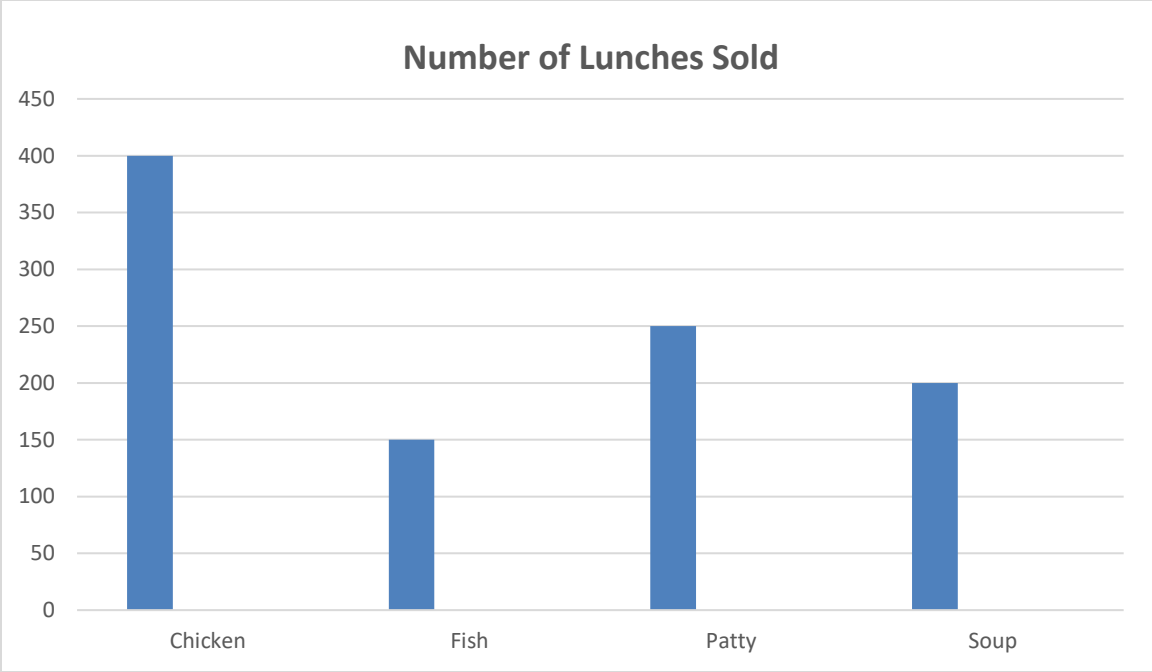
16. Morgan did seven tests and the scores are 75, 80, 88, 90, 80, 70 82. What is the modal score?
    A. 7
    B. 75
    C. 80
    D. 90

You are the owner of a clothes store and want it to be the most popular store by keeping your customers happy with the clothes you sell.

17. List four pieces of information you could collect to make sure that your customers are happy with what you have to sell.

18. Explain how you would go about collecting this information.

After checking the canteen records at a primary school for the first week September 2018, the data was placed on a bar chart, as displayed below.



19. A. Fill in blank spaces to complete the statement below.
The most lunches sold for the week were _____ and the least lunches sold were _____.

B. how many more patties were sold than fish lunches?

c. How many lunches were sold in all?

20. A. What is the probability of a soup being bought?

B. Why do you think this data was collected?

C. The price list showed **chicken - $250, Fish - $300, Patty - $150 and Soup - $100.**

If 150 fish lunches were bought, how many chicken lunches could be bought for that number of fish lunches?