

# **GRADE 8 - PRACTICE SUMMATIVE**

## **NUMBER SENSE AND NUMERATION**

- 1) Write in exponential notation : 50, 805
- 2) Expand :  $6.78 \times 10^3$
- 3) Divide :  $6/7$  by  $8/9$
- 4) Multiply ;  $4/5 \times 2/3$
- 5)  $9000 / 10^2$
- 6)  $500 \times 0.007$
- 7)  $5 + 8 \times 4^2$
- 8) Calculate 115 % of \$60
- 9) If there are 6 boys and 18 girls in a class, what will a school of the same proportions with total 120 students consist of ?

## **ALGEBRA**

- 1) Solve the equations : i)  $4x - 5 = 22$       ii)  $3x + 8 = 20$
- 2) Find the 100<sup>th</sup> term of the sequence : 3, 8, 13, .....
- 3) Two consecutive integers add to 107. Calculate both.

## **GEOMETRY AND SPATIAL SENSE**

- 1) Count the edges, vertices and faces in a cuboid. Suggest a relationship between them.
- 2) Use angle geometry to prove that there are 180 degrees in a triangle.
- 3) Plot the point ( 3, -4 ) on a cartesian graph. Rotate it by 180 degrees. Then reflect it in the y-axis.

4) Use pythagoras theorem to calculate the long side of a right triangle that has short sides 9cm and 12 cm.

5) Use pythagoras theorem to calculate the short side of a triangle which has sides 10cm and 8 cm.

### **MEASUREMENT**

1) Convert  $50 \text{ m}^3$  to  $\text{cm}^3$

2) Convert  $800\text{cm}^2$  to  $\text{m}^2$

3) Calculate the area and circumference of a circle that has diameter 7cm.

4) Calculate the surface area of a cylinder that has height 6cm and radius 8cm.

### **PROBABILITY AND DATA MANAGEMENT**

1) Plot the following data on a scatterplot :

Time ( x)	0	1	2	3	4	5	6
Height ( y)	2m	4m	5m	5m	7m	6m	9m

2) Find the mean, median, mode and range of the data set :  
1, 7, 9, 11, 3, 4, 1, 7, 3, 3, 1, 8, 9, 10, 1.

3) Organise the data above into a grouped frequency table with the groups 0-5, 6-10, 11- 18. Plot the groups as a histogram.

4) i) Calculate the theoretical probability of throwing a dice twice and getting two sixes.

ii) Calculate the experimental probability of such an event if a dice is thrown 25 times and you get 4 sixes. Which is higher, the theoretical or experiemantal?

Iii) How would they compare if you threw the dice repeatedly ?