

GRADE 7 SUMMATIVE – May 2014

Answer all questions and show full process please . Even if you get an answer wrong, you will be rewarded for method and effort.

You are advised to spend 15 minutes per section.

Calculators are allowed but NOT for the 'Number Sense' section please.

Name _____

Score _____

NUMBER SENSE AND NUMERATION

1) Evaluate : I) 8^2 ii) $6 + 2 \times 3$ iii) $6/7 - 2/9$ iv) $5 \times 6/7$

v) $\sqrt{100}$

2) Convert to a percentage : $3/5$

3) Evaluate : $75 \div 0.15$

4) Which is cheaper per litre, 7 litres of milk at \$ 15.99 or 3 litres for \$4.99 ?

PATTERNS AND ALGEBRA

1) Find the next two terms and predict the 70th term of the sequences :

i) 7 ,10, 13.....

ii) 8, 4, 0, . ,... ..

2) Solve the equations : I) $4x - 3 = 13$

ii) $2x + 5 = 15$

- 3) Sarah is twice as old as Ali. Ali is 3 years younger than John. The total of their ages is 50. How old is each person ?

GEOMETRY AND SPATIAL SENSE

- 1) Plot the triangle that is created by joining the points A (1,1) B(2,1) and C (2, 2). Reflect the shape in the x-axis.
- 2) Draw a line AB, 6cm long. Draw the perpendicular bisector of the line, and label it CD. Also draw a line parallel to AB, and label it EF.
- 3) What is the size of one interior angle of a regular octagon ? hint ; use the formula $(n - 2) \times 180^\circ$
- 4) Bertie the now not so mini shark has now graduated to a larger aquarium that measures 60cm by 50m cm by 30 cm. How many litres could such an aquarium hold ? (hint : $1\text{cm}^3 = \text{ml}$)

MEASUREMENT

- 1) A rectangular cuboid measures 6cm by 7cm by 8cm . What is the *volume* and *surface area* of the cuboid ?
- 2) Calculate the area of a trapezoid which has height 3cm and parallel lengths 4cm and 6cm.
- 3) What is 2,640 metres in kilometres ?
- 4) What is 4000cm^2 in m^2 ?

PROBABILITY AND DATA MANAGEMENT

I) collect the data into the frequency table and plot as a pie chart : (You may approximate the slice size if a protractor is unavailable , but label the degrees it should be)

1, 1 , 2, 2, 4, 7 , 9 , 11

| Data range | Frequency |
|------------|-----------|
| 0 - 5 | |
| 6 to 10 | |
| 11 to 17 | |

ii) Also for the above data find the *mean, median, mode and range*

- 2) What is the *theoretical probability* of throwing a dice twice and getting 1 six ?
- 3) John throws a dice 30 times and gets a 1 nine times. What is the *experimental probability* of getting a 1 on the dice ?
- 4) A *survey* asks a class the question : ' What is your favourite team – Sens or Leafs " What is wrong with the survey question ? How might it be improved ?
- 5) Another survey asks the band at a high school ' Should the school spend its spare money on either musical instruments or more sports equipment ? What is wrong with the survey ?

END