

**Grade 7 Mathematics Test MEMO 22 Feb '11**

**Question 1**

- 1.1  $349 \approx 300$   
 1.2  $199,502 \approx 199,50$   
 1.3  $0,996 \approx 1,00$   
 1,4 In  $4250,73$   $3 = \frac{3}{100}$  and  $4 = 4000$   
 1.5 the numbers between 0,02 and 0,1  
 0,005 0,027 0,125 0,085 0,009

**Question 2**

- 2.1  $7,471 + 0,828 = 8,299$   
 2.2  $(8,1 + 9,39) \div 2 = 8,745$

**Question 3**

- 3.1  $5^1; 5^2; 5^3; 5^4$   
 3.2  $16 = 2^4$  or  $4^2$

**Question 4**

- 4.1  $F_{36} = 1, 2, 3, 4, 6, 9, 12, 18, 36$   
 4.2  $1, 4, 9, 36$   
 4.3  $M_{36} = 36, 72, 108, 144, 180$   
 4.4  $F_{27} = 1, 3, 9, 27$   
 $\therefore$  HCF = 9.  
 4.5  $M_{24} = 24, 48, 72, \dots$   
 $\therefore$  LCM = 72  
 4.6  $26 = 1+2+13 = 16$   
 $27 = 1+3+9 = 13$   
 $28 = 1+2+4+7+14 = 28$   
 $\therefore$  28 is a perfect number between 25 and 30.  
 4.7  $756 = 2^2 \cdot 3^3 \cdot 7$

**Question 5**

- 5.1  $33 - 8 \times 2$   
 $= 33 - 16$   
 $= 17$

5.2  $10 \div (3 - 3)$   
 $= 10 \div 0$

$\therefore$  undefined  
 5.3  $3^2 - (2^2 + 5)$   
 $= 9 - (4 + 5)$   
 $= 9 - 9$   
 $= 0$

5.4  $13 - (2 + 4) \div 3 + 2 \times 3$   
 $= 13 - 6 \div 3 + 2 \times 3$   
 $= 13 - 2 + 6$   
 $= 17$

5.5  $21 \times 3 \div (10 - 3) \times \sqrt{16}$   
 $= 21 \times 3 \div 7 \times 4$   
 $= 21 \times 3 \div 7 \times 4$   
 $= 36$

**Question 6**

- 6.1  $20 \times (35 - 7) = 20 \times 35 - 20 \times 7$   
 6.2  $25^2 = 26 \times 24 + 1$

**Question 7**

- 7.1 money he will get on his 21<sup>st</sup>  
 $= 2^9 = R512$   
 7.2 He would have saved:  
 $2+4+8+16+32+64+128+256+512$   
 $= R1022$

**Question 8**

- 8.1 winner of the event  
 $=$  Gabriel Soloman  
 8.2 the slowest time recorded  $= 58,9s$   
 8.3 ZACH was  
 $58,7 - 58,4 = 0,17s$  faster

**Question 9**

9.1

Mixed Fraction	Improper Fraction
$3\frac{3}{4}$	$\frac{15}{4}$
$4\frac{1}{7}$	$\frac{29}{7}$

9.2  $\frac{7}{12}; \frac{23}{24}; \frac{5}{6}$

$\frac{14}{24}; \frac{23}{24}; \frac{20}{24}$

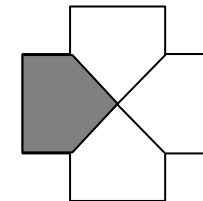
$\frac{23}{24} > \frac{5}{6} > \frac{7}{12}$

9.3  $3\frac{1}{4} - 1\frac{1}{6} + \frac{1}{8}$

$= \frac{13}{4} - \frac{7}{6} + \frac{1}{8}$

$= \frac{78}{24} - \frac{28}{24} + \frac{3}{24}$

$= \frac{53}{24}$



9.4

9.5 fraction of the class is in a leadership role  $= \frac{6}{24} = \frac{1}{4}$

**Bonus Questions**

1. 51

2. 5931