



ADM

NAME

CLASS

DATE

SCHOOL

SCORE/ **29**.....

TEACHER'S COMMENT

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INSTRUCTIONS: Answer all the questions given below and clearly show your workings

1. What is the place value and total value of 5 in:

a. 453: PV TV

b. 705: PV TV

c. 570: PV TV

d. 5 160: PV TV

e. 75 326: PV TV

f. 2 753 689 004: ... PV TV

[KEY: PV-PLACE VALUE TV- TOTAL VALUE] [6 marks]

2. Write down the following numbers in figures and state the number of digits in each case.
- a. Two hundred and five thousand and four.

 - b. Nine hundred thirty one thousand, seven hundred and thirty one

 - c. Thirty one million, thirty one thousand and thirty one

 - d. Eight billion, thirty one million, five hundred and three thousand, seven hundred and three

[4 marks]

3. Study the range of numbers between 20-40 and use it to answer the following questions
- a. List all prime numbers in this range

b. List all even numbers in this range

c. List all odd numbers in this range

[3 marks]

4. Evaluate:

a. $8\,624\,924 + 62\,569 + 794 + 244\,527$ **[1 mark]**

b. $4\,008\,001 - 1\,295\,039$ **[1 mark]**

c. $12\,374 \times 365$ **[1 mark]**

d. $27\,234 \div 89$ **[1 mark]**

5. Consider the number **24 192** and use it to answer the following questions

a. Find all its prime factors [**2 MKS**]

ii. 2 [**1 MK**]

iii. 3 [**1 MK**]

iv. 4 [**1 MK**]

v. 5 [**1 MK**]

vi. 6 [**1 MK**]

b. Write the prime factors (a) above in power form [**1 MK**]

vii. 8 [**1 MK**]

c. Multiply the number by 15 and find out if the result is divisible by [2,3,4,5,6,8,9,11]:

viii. 9 [**1 MK**]

i. Multiplication [**1 MK**]

ix. 11 [**1 MK**]

MARKING SCHEME

1	a	453 PV=TENS, TV=50	EACH CORRECT ANSWER @ $\frac{1}{2}$ A MARK $\times 12 = 6$ MARKS
	b	705 PV=ONES, TV=5	
	c	570 PV=HUNDREDS, TV= 500	
	d	5160 PV=THOUSANDS, TV=5000	
	e	75 326 PV=THOUSANDS, TV=5000	
	f	2 753 689 004 PV=TEN MILLIONS, TV=50 000 000	
2	a	245000 +4 6-DIGITS 245004	1 MARK [WORKINGS MUST BE SHOWN]
	b	931000 700 6-DIGITS 31 931731	1 MARK [WORKINGS MUST BE SHOWN]
	c	31000000 31000 8-DIGITS 31 31031031	1 MARK [WORKINGS MUST BE SHOWN]
	d	8000000000 31000000 10-DIGITS 503000 703 8031503703	1 MARK [WORKINGS MUST BE SHOWN]
3	a	PRIME NUMBERS: 23, 29, 31, 37	1 MARK
	b	EVEN NUMBERS: 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40	1 MARK
	c	ODD NUMBERS: 21, 23, 25, 27, 29, 31, 33, 35, 37, 39	1 MARK
4	a	8 624 924 + 62 569 + 794 + 244 527 8624924 62569 794 +244527 8932814	$M=\frac{1}{2} + A=\frac{1}{2} = 1$ MARK
	b	4 008 001 – 1 295 039 4008001 -1295039 2712962	$M=\frac{1}{2} + A=\frac{1}{2} = 1$ MARK
	c	12 374 \times 365 12374 365 61870 74244 37122 4516510	$M=\frac{1}{2} + A=\frac{1}{2} = 1$ MARK
	d	27 234 \div 89 =306	$M=\frac{1}{2} + A=\frac{1}{2} = 1$ MARK

5	a	<p>2 24192</p> <p>2 12096</p> <p>2 6048</p> <p>2 3024</p> <p>2 1512</p> <p>2 756</p> <p>2 378</p> <p>3 189</p> <p>3 63</p> <p>3 21</p> <p>7 7</p> <p>1</p> <p>$= 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 3 \times 7$</p>	M=1 + A=1 = 2 MARKS
	b	$2^7 \times 3^3 \times 7 \times$	1 mark
	c	<p>i.</p> <p style="padding-left: 40px;">24192 × 15 362880</p> <p>ii. DIVISIBILITY TEST BY 2 YES</p> <p>iii. DIVISIBILITY TEST BY 3 YES</p> <p>iv. DIVISIBILITY TEST BY 4 YES</p> <p>v. DIVISIBILITY TEST BY 5 YES</p> <p>vi. DIVISIBILITY TEST BY 6 YES</p> <p>vii. DIVISIBILITY TEST BY 8 YES</p> <p>viii. DIVISIBILITY TEST BY 9 YES</p> <p>ix. DIVISIBILITY TEST BY 11 NO</p> <p><i>Workings MUST be clearly shown for (M-method)and (A-answer)</i></p>	$M = \frac{1}{2} + A = \frac{1}{2} \times 9 = 9$ MARKS