MATHEMATICS 1 ESO

WORKSHEETS

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UNIT 0: SAYING NUMBERS

1. Write the following numbers using digits:

- Eight thousand, five hundred and twenty ≡ _____
- Fourteen thousand, six hundred ≡ _____
- Nine thousand and fifteen ≡ _____
- Thirty thousand, six hundred and two ≡ _____
- Forty- five thousand, one hundred ≡ _____
- Six hundred and thirty thousand ≡ _____
- Fifty thousand, two hundred and seven ≡ _____
- Eight hundred and four thousand and nine ≡ _____
- One million, three hundred and ten ≡ _____
- Ten million and thirty-seven ≡ _____
- One hundred thousand and seventy ≡ _____
- Seven million, four hundred thousand and two ≡ _____

2. Write down how these numbers are read:

- 8.209 ≡ _____
- 1.015 ≡ _____
- 6.009 ≡ _____
- 32.879 ≡ _____
- 567.045 ≡ _____
- 8.520.000 ≡ _____
- 15.203.150 ≡ _____
- 20.004.090 ≡ _____
- 64.019.005 ≡ _____
- 81.007.003 ≡ _____
- 560.023.040 ≡ _____
- 5.000.006.001 ≡ _____

UNIT 1: NATURAL NUMBERS

1. Calculate:

a) 345 + 27 + 128 =

$$\begin{array}{r} 345 \\ +\ 27 \\ 128 \\ \hline \end{array}$$

b) 3241 + 102 + 280 =

c) 1305 + 902 + 75 =

d) 799 + 199+ 99 =

e) 690 + 321 + 2000 =

f) 4050 + 2101 + 978 =

g) 2045 – 768 =

h) 7890 – 3971 =

i) 3000 – 299 =

j) 23407– 9011 =

2. Calculate and complete:

a) 6195 – _____ = 234

b) _____ + 5670 = 12705

c) _____ – 128 = 987

d) 4027 + _____ = 15051

1. Calculate:

a) $2534 \cdot 15 =$

b) $4178 \cdot 280 =$

c) $3056 \cdot 27 =$

d) $9090 \cdot 780 =$

e) $1982 \cdot 507 =$

f) $24050 \cdot 402 =$

2. Calculate mentally and complete:

a) $4568 \cdot 100 =$ _____

b) _____ $\cdot 1000 = 345000$

c) $100 \cdot$ _____ $= 409800$

d) $923 \cdot$ _____ $= 923000$

3. Solve the following divisions:

a) $324 \mid 12$

b) $9775 \mid 23$

c) $10256 \mid 34$

d) $40632 \mid 125$

1. Calculate the following powers (without using your calculator):

a) $2^3 =$ b) $3^4 =$ c) $4^2 =$ d) $5^3 =$

e) $7^4 =$ f) $6^2 =$ g) $8^3 =$ h) $9^2 =$

2. Calculate the following powers of ten (without using your calculator):

a) $10^2 =$ b) $10^4 =$ c) $10^3 =$ d) $10^6 =$

3. Express as a power:

a) $2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 =$ b) $13 \cdot 13 \cdot 13 \cdot 13 =$

c) $3^2 \cdot 3^4 \cdot 3^3 =$ d) $5 \cdot 5^2 \cdot 5^3 =$

e) $11^3 \cdot 11 \cdot 11^3 \cdot 11 =$ f) $7^2 \cdot 7^2 \cdot 7^2 \cdot 7^2 =$

4. Calculate (using your calculator):

a) $2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 =$ b) $13 \cdot 13 \cdot 13 \cdot 13 =$

c) $3^2 \cdot 3^4 \cdot 3^3 =$ d) $5 \cdot 5^2 \cdot 5^3 =$

e) $11^3 \cdot 11 \cdot 11^3 \cdot 11 =$ f) $7^2 \cdot 7^2 \cdot 7^2 \cdot 7^2 =$

5. Express as a power:

a) $4 =$ b) $36 =$ c) $81 =$

d) $25 =$ e) $16 =$ f) $49 =$

g) $100 =$ h) $9 =$ i) $64 =$

6. Mentally calculate the following square roots:

a) $\sqrt{16} =$ b) $\sqrt{49} =$ c) $\sqrt{36} =$

d) $\sqrt{9} =$ e) $\sqrt{81} =$ f) $\sqrt{4} =$

g) $\sqrt{25} =$ h) $\sqrt{64} =$ i) $\sqrt{100} =$

1. Calculate:

a) $4 \cdot 3 - 5 =$

b) $3 \cdot 2 + 5 \cdot 4 =$

c) $2 \cdot (3 - 2 + 8) =$

d) $13 + 7 \cdot 6 =$

e) $10 \cdot 2 - 3 \cdot 5 =$

f) $1 + 2 \cdot (6 - 3) =$

g) $8 - (5 + 2) =$

h) $5 - (1 + 2) =$

i) $9 - (6 - 1) =$

j) $4 - (2 - 1) =$

k) $10 - (12 - 8) =$

l) $8 - (9 - 7) =$

m) $7 - (7 - 4) =$

n) $19 - 6 \cdot 2 =$

2. Solve:

a) $12 - (4 : 2) =$

b) $4 : (8 : 2) =$

c) $15 - 2 \cdot 3 - 8 : 2 =$

d) $(10 - 2 \cdot 3 - 2) : 2 =$

e) $(16: 4) \cdot 2 - 3 =$

f) $12 - 10 : 2 - 7 =$

g) $18 : 9 + 4 : 2 =$

h) $6 \cdot 5 : 3 - 3 \cdot 2 =$

3. Solve:

a) $10 \cdot 3 - 12 : 2 - 10 : 5 + 4 \cdot 2 =$

b) $(100 - 30 : 3) - (8 \cdot 4) =$

c) $8 + 7 \cdot (10 - 7) - 15 : 3 =$

d) $(13 - 2 + 3+ 4) : (15 - 12) =$

e) $20 - [3 + (8 + 2)] =$

f) $[12 - (8 - 2)] : 2 =$

g) $[(21 + 3) : 2] : [8 - (20 : 2) : 5] =$

1. Round the following numbers to the indicated places:

NUMBER	To the nearest ten	To the nearest hundred	To the nearest thousand
3125			
94678			
1111			
54391			
6789			
404040			
32999			

2. Truncate the following numbers to the indicated places:

NUMBER	To the hundreds	To the thousands	To the ten thousands
73125			
94678			
61111			
54391			
86789			
404040			
32999			

UNIT 2: DIVISIBILITY

1. Complete with the appropriate words (multiple of or divisor of):

a) 15 is _____ 5 b) 4 is _____ 12 c) 13 is _____ 1

d) 6 is _____ 36 e) 3 is _____ 24 f) 45 is _____ 5

g) 22 is _____ 11 h) 7 is _____ 28 i) 30 is _____ 15

2. Complete with T (True) or F (False):

a) 45 is divisible by 10 ☐ b) 5 is divisible by 10 ☐ c) 25 is divisible by 5 ☐

d) 56 is multiple of 2 ☐ e) 15 is multiple of 4 ☐ f) 100 is multiple of 10 ☐

g) 3 is divisor of 15 ☐ h) 25 is divisor of 100 ☐ i) 13 is divisor of 169 ☐

3. Underline the multiples of 8: 2, 8, 16, 18, 24, 80, 64, 88, 38, 72

4. Underline the divisors of 32: 1, 32, 15, 16, 64, 4, 8, 15, 23, 320

5. Underline the multiples of 2 and circle the divisors of 36:

1 4 20 3 18 6 40 36 16 44 72 14

6. Underline the prime numbers: 7, 1, 8, 10, 3, 5, 11, 63, 13, 17

7. Write down all the multiples of 5 between 6 and 46:

8. Find out all the multiples of 2 greater than 100 and less than 130:

9. Write down the first 12 multiples of 9:

1. Calculate the prime factorization of the following numbers:

a) 24

24 =

b) 50

50 =

c) 98

98 =

d) 66

66 =

e) 60

60 =

f) 72

72 =

g) 80

80 =

h) 121

121 =

2. Calculate the GCD of the following pairs of numbers:

a) 15 and 14

15

15 =

14

14 =

GCD (15, 14) =

b) 90 and 75

90

90 =

75

75 =

GCD (90, 75) =

c) 60 and 140

60

60 =

140

140 =

GCD (60, 140) =

d) 81 and 63

81

81 =

63

63 =

GCD (81, 63) =

1. Calculate the LCM of the following pairs of numbers:

a) 25 and 35

25 | 35

25 =

35 =

LCM (25, 35) =

b) 12 and 60

12 | 60

12 =

60 =

LCM (12, 60) =

c) 32 and 72

32 | 72

32 =

72 =

LCM (32, 72) =

d) 26 and 169

26 | 169

26 =

169 =

LCM (26, 169) =

e) 21 and 42

21 | 42

21 =

42 =

LCM (21, 42) =

f) 18 and 27

18 | 27

18 =

27 =

LCM (18, 27) =

g) 80 and 100

80 | 100

80 =

100 =

LCM (80, 100) =

h) 144 and 84

144 | 84

144 =

84 =

LCM (144, 84) =

1. Calculate the GCD and the LCM of the following sets of numbers:

a) 15 and 25

15 | 25 |

GCD (15,25) =
LCM (15,25) =

b) 30 and 50

30 | 50 |

GCD (30, 50) =
LCM (30, 50) =

c) 45 and 21

45 | 21 |

GCD (45, 21) =
LCM (45, 21) =

d) 27 and 36

27 | 36 |

GCD (27, 36) =
LCM (27, 36) =

e) 12, 22 and 24

12 | 22 | 24 |

GCD (12, 22, 24) =
LCM (12, 22, 24) =

f) 40, 20 and 60

40 | 20 | 60 |

GCD (40, 20, 60) =
LCM (40, 20,60) =

g) 8, 42 and 33

8 | 42 | 33 |

GCD (8, 42, 33) =
LCM (8, 42, 33) =

h) 5, 35 and 135

5 | 35 | 135 |

GCD (5, 35, 135) =
LCM (5, 35, 135) =

1. Calculate the LCM and the GCD of the following sets of numbers:

a) 20, 25 and 100

20 | 25 | 100

GCD(20, 25, 100) =
LCM(20, 25, 100) =

b) 30, 90 and 60

30 | 90 | 60

GCD(30, 90, 60) =
LCM(30, 90,60) =

c) 18, 81 and 45

18 | 81 | 45

GCD(18, 81, 45) =
LCM(18, 81, 45) =

d) 42, 70 and 35

42 | 70 | 35

GCD(42, 70, 35) =
LCM(42, 70, 35) =

e) 24, 20 and 70

24 | 20 | 70

GCD(24, 20, 70) =
LCM(24, 20, 70) =

f) 25, 45 and 60

25 | 45 | 60

GCD(25, 45, 60) =
LCM(25, 45, 60) =

g) 125, 50 and 150

125 | 50 | 150

GCD(125, 50, 150) =
LCM(125, 50, 150) =

h) 49, 121 and 77

49 | 121 | 77

GCD(49, 121, 77) =
LCM(49, 121, 77) =