



ISLAMIYA ENGLISH SCHOOL

MATHS WORKSHEETS

Grade VI

CHAPTER: 12 FACTORS & INDICES

Objectives:

Factors
Multiples
Prime Numbers
Indices
Finding Prime factors
Expressing a number in prime factors
Highest common factor
Lowest common multiple

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❖ Factors.

1. Express each of the following numbers as the product of two factors, giving all possibilities.

i. $160 = 1 \times 160, 2 \times 80, 4 \times 40, 5 \times 32, 8 \times 20, 10 \times 16.$

ii. $100 =$

iii. $120 =$

iv. $64 =$

v. $40 =$

❖ Multiples.

2. Write down all the multiples of 4 between 15 and 35

3. Write down all the multiples of 7 between 20 and 50

4. Write down all the multiples of 11 between 10 and 100.

❖ Prime Numbers.

5. List down all the prime numbers between 1 and 50

6. State True or False.

a. All prime numbers are **Odd** numbers

True	False
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b. All Odd numbers are prime numbers

True	False
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c. The only **Even Prime** numbers is **2**

True	False
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d. There are six prime numbers between 1 and 10

True	False
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❖ Indices

7. Express the following products in Index form.

a. $7 \times 7 \times 7 \times 7 \times 7 =$

b. $13 \times 13 \times 13 \times 13 \times 13 \times 13 \times 13 \times 13 \times 13 \times 13 =$

c. $3 \times 11 \times 2 \times 5 \times 3 \times 2 \times 5 =$

d. $3 \times 3 \times 10 \times 7 \times 3 \times 10 \times 7 \times 7 \times 10 =$

e. $2 \times 3 \times 2 \times 5 \times 3 \times 5 =$

8. Calculate the value of the following:

a. $3^4 = 3 \times 3 \times 3 \times 3 = 81$

b. $7^2 =$

c. $10^3 =$

d. $2^5 =$

e. $5^2 =$

f. $5^2 \times 3^2 =$

g. $2^2 \times 3^2 \times 5^2 =$

h. $= 2 \times 5^2 \times 7 =$

9. Write the following numbers in Index Form.

a. $8 = 2 \times 2 \times 2 = 2^3$

b. $100 =$

c. $125 =$

d. $625 =$

e. $81 =$

❖ Finding Prime factors

10. Is the Number to the left of each row divisible by the Number at top of each column? Write **YES** or **NO** in each box.

	2	3	5	6	10
2304	YES	YES	NO	YES	NO
4086					
10752					
30870					
2070					
1146					

❖ Expressing a number in prime factors

11. Express each of the following numbers in prime factors:

a. $28 =$

b. $72 =$

c. $166 =$

d. $15 =$

e. $660 =$

f. $972 =$

❖ Highest common factor [H C F]

12. State the HCF of the following numbers:

a. 14, 42

b. 21, 42, 84

c. 39, 13, 26

d. 34, 44, 52, 56

e. 10, 18, 20, 36

❖ Lowest common multiple [L C M]

13. Find the LCM for the following numbers.

a. 9, 12

b. 4, 5, 6

c. 9, 12, 36

d. 14, 18, 24

e. 207, 138