Mathematics worksheet (2)

Multiples and factors + square and cube numbers and roots

Name: **Grade 6 (B, C, D, E, F)**

Multiples and factors.

- Multiples: The multiples of a number are all the numbers from its timetable.

- Factors: The factors of a number are all the whole numbers that divide into it.

- Prime number: is the number that has only **two factors**; **1** and the **number itself**.

- Composite number: a number that has **more than two factors.**

Exercise (1): Write the first seven multiples of:

a) 7: **7, 14, 21, 28, 35, 42, 49**
b) 9: **9, 18, 27, 36, 45, 54, 63**
c) 14: **14, 28, 42, 56, 70, 84, 98**

Exercise (2): Write all the factors of:

a) 34: **1, 2, 17 and 34.**
b) 90: **1, 2, 3, 5, 6, 9, 10, 15, 18, 30, 45, and 90.**
c) 64: **1, 2, 4, 8, 16, 32 and 64**
d) 120: **1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20, 24, 30, 40, 60 and 120**

Exercise (3): Check (√) the prime number from the composite number.

	Prime number	Composite number
81		✓
233	✓	
411		✓
6352		✓

Exercise (4):

a) Find the HCF of:

32: 1, 2, 4, 8, 16, 32

48: 1, 2, 3, 4, 6, 8, 12, 16, 24 and 48.

HCF: 16

b) Find the LCM of:

5: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60

12: 12, 24, 36, 48, 60, 72, 84

20: 20, 40, 60, 80, 100, 120

LCM: 60

Exercise (5): Check the divisibility for the numbers below.

	Divisible by 2	Divisible by 3	Divisible by 5	Divisible by 6	Divisible by 8	Divisible by 9
918120	✓	✓	✓	✓	✓	
31245		✓	✓			
133137		✓				✓

Exercise (6): Work out.

a) 5^2 ⟹ 25

b) 11^2 ⟹ 121

c) 7^3 ⟹ 343

d) $\sqrt{196}$ ⟹ 14

e) $\sqrt[3]{125}$ ⟹ 5

f) $\sqrt[3]{64}$ ⟹ 4

g) 10^3 ⟹ 1000

h) $\sqrt{324}$ ⟹ 18

Challenging question.

Work out.

$$-7 - 10 \times \sqrt{16} \div \sqrt[3]{125} - (7 + 6^2 \div 12) - 20 - 4^3$$

-109