



## Mathematics worksheet (2)

### Multiples and factors + square and cube numbers and roots

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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, 72, 91

c) 14: 14, 28, 42, 56, 70, 84, 98

**Exercise (2):** Write all the factors of:

a) 34: 1, 2, 17, 34

b) 90: 1, 2, 3, 5, 6, 9, 10, 15, 18, 30, 45, 90

c) 64: 1, 2, 4, 8, 16, 32, 64

d) 120: 1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20, 24, 30, 40, 60, 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, 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

20: 20, 40, 60

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)  $5^2 \Rightarrow 5 \times 5 = 25$

b)  $11^2 \Rightarrow 11 \times 11 = 121$

c)  $7^3 \Rightarrow 7 \times 7 \times 7 = 343$

d)  $\sqrt{196} \Rightarrow 14$

e)  $\sqrt[3]{125} \Rightarrow 5$

f)  $\sqrt[3]{64} \Rightarrow 4$

g)  $10^3 \Rightarrow 10 \times 10 \times 10 = 1000$

h)  $\sqrt{324} \Rightarrow 18$

**Challenging question.**

Work out.

$$\begin{aligned} & -7 - 10 \times \sqrt{16} \div \sqrt[3]{125} - (7 + 6^2 \div 12) - 20 - 4^3 \\ & -7 - 10 \times \sqrt{16} \div \sqrt[3]{125} - (7 + 36 \div 12) - 20 - 4^3 \\ & -7 - 10 \times \sqrt{16} \div \sqrt[3]{125} - (7 + 3) - 20 - 4^3 \\ & -7 - 10 \times 4 \div \sqrt[3]{125} - 10 - 20 - 4^3 \\ & -7 - 10 \times 4 \div 5 - 10 - 20 - 4^3 \\ & -7 - 40 \div 5 - 10 - 20 - 64 \\ & -7 - 8 - 10 - 20 - 64 \\ & -15 - 10 - 20 - 64 \\ & -25 - 20 - 64 \\ & -45 - 64 = -109 \end{aligned}$$