

Grade 7 Math Worksheet

Topics: Square Numbers, Order of Operations, Integers, and Number Properties

Section 1: Square Numbers and Square Roots

Find the square of each number:

- a) 7 b) 9 c) 11 d) 13

Find the square root of each number:

- a) 64 b) 100 c) 169 d) 196

Is 225 a square number? Explain your answer.

Section 2: Order of Operations (BIDMAS)

Simplify the following expressions:

- a) $4 + 6 \times 3$
b) $(9 + 3) \div 2$
c) $8 \times (2 + 3) - 7$
d) $15 - (4 + 2 \times 3)$

Section 3: Adding, Subtracting, Multiplying, and Dividing Integers

Solve the following:

- a) $(-6) + 8$
b) $(-9) - (-5)$
c) $(-7) \times 4$
d) $24 \div (-6)$

True or False: The product of a positive and a negative number is always negative.

Section 4: Prime and Composite Numbers

Identify whether each number is prime or composite:

- a) 19 b) 22 c) 31 d) 40

List all prime numbers between 50 and 100.

Section 5: Prime Factor Trees

Complete the prime factor tree for 72.

Write the prime factorisation of 90 using exponents.

Section 6: Index Notation

Rewrite the following using index notation:

- a) $4 \times 4 \times 4 \times 4 \times 4$
b) $6 \times 6 \times 6$
c) 3×3

Simplify:

- a) 3^3
b) 8^2
c) 5^4

Challenge Questions

A square has an area of 256 cm^2 . What is the length of one side?

Simplify: $(6 + 2^3) \div 2$

Write 1,080 in prime factorisation form.