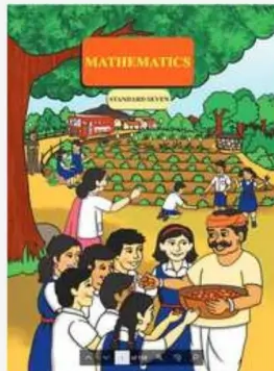


Maharashtra Board Solutions Class 7-Maths

(Practice Set 36): Chapter 8- Algebraic Expressions and Operations on them

BOOK SOLUTIONS
CLASS 7
MATHS

CHAPTER 8
Algebraic Expressions and Operations on them



Maharashtra Board Solutions→



For any clarifications or questions you can write to info@indcareer.com

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Maharashtra Board Solutions Class 7-Maths

(Practice Set 36): Chapter 8- Algebraic Expressions and Operations on them

Class 7: Maths Chapter 8 solutions. Complete Class 7 Maths Chapter 8 Notes.

Maharashtra Board Solutions Class 7-Maths (Practice Set 36): Chapter 8- Algebraic Expressions and Operations on them

Maharashtra Board 7th Maths Chapter 8, Class 7 Maths Chapter 8 solutions

Question 1.

Simplify $(3x - 11y) - (17x + 13y)$ and choose the right answer.

(A) $7x - 12y$

(B) $-14x - 54y$

(C) $-3(5x + 4y)$

(D) $-2(7x + 12y)$

Solution:

(D) $-2(7x + 12y)$

Hints:

$$(3x - 11y) - (17x + 13y) = 3x - 11y - 17x - 13y$$

$$= -14x - 24y$$

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$$= -2 \times 7x - 2 \times 12y$$

$$= -2(7x + 12y)$$

Question 2.

The product of $(23x^2y^3z)$ and $(-15x^3yz^2)$ is __

(A) $-34x^5y^4z^3$

(B) $34x^2y^3z^5$

(C) $145x^3y^2z$

(D) $170x^3y^2z^3$

Solution:

(A) $-34x^5y^4z^3$

Question 3.

Solve the following equations:

i. $4x + 12 = 92$

ii. $10 = 2y + 5$

iii. $5m - 4 = 1$

iv. $6x - 1 = 3x + 8$

v. $2(x - 4) = 4x + 2$

vi. $5(x + 1) = 74$

Solution:

i. $4x + 12 = 92$

$$\therefore 4x = \frac{9}{2} - \frac{1}{2}$$

$$\therefore 4x = \frac{8}{2}$$

$$\therefore 4x = 4$$

$$\therefore x = \frac{4}{4}$$

$$\therefore \mathbf{x = 1}$$

ii. $10 = 2y + 5$

$$\therefore 10 - 5 = 2y$$

$$\therefore 5 = 2y$$

$$\therefore \frac{5}{2} = y$$

$$\therefore \mathbf{y = \frac{5}{2}}$$

iii. $5m - 4 = 1$

$$\therefore 5m = 1 + 4$$

$$\therefore 5m = 5$$

$$\therefore m = \frac{5}{5}$$

$$\therefore \mathbf{m = 1}$$

iv. $6x - 1 = 3x + 8$

$$\therefore 6x - 3x = 8 + 1$$

$$\therefore 3x = 9$$

$$\therefore x = \frac{9}{3}$$

$$\therefore \mathbf{x = 3}$$

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v. $2(x - 4) = 4x + 2$

$$\therefore 2x - 8 = 4x + 2$$

$$\therefore -8 - 2 = 4x - 2x$$

$$\therefore -10 = 2x$$

$$\therefore x = \frac{-10}{2}$$

$$\therefore x = -5$$

vi. $5(x + 1) = 74$

$$\therefore 5x + 5 = 74$$

$$\therefore 5x = 74 - 5$$

$$\therefore 5x = 69$$

$$\therefore x = \frac{69}{5}$$

Question 4.

Rakesh's age is less than Sania's age by 5 years. The sum of their ages is 27 years. How old are they?

Solution:

Let the age of Rakesh be x years.

$\therefore$ Sania's age = $(x + 5)$ years.

According to the given condition,

$$x + (x + 5) = 27$$

$$\therefore 2x + 5 = 27$$

$$\therefore 2x = 27 - 5$$

$$\therefore 2x = 22$$

$$\therefore x = 22 \div 2 = 11$$

Sania's age = $x + 5 = 11 + 5 = 16$ years

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∴ The ages of Rakesh and Sania are 11 years and 16 years respectively.

Question 5.

When planting a forest, the number of jambhul trees planted was greater than the number of ashoka trees by 60. If there are altogether 200 trees of these two types, how many jambhul trees were planted?

Solution:

Let the number of jambhul trees planted be x .

∴ Number of ashoka trees = $x - 60$

According to the given condition, $x + x - 60 = 200$

$$\therefore 2x = 200 + 60$$

$$\therefore 2x = 260$$

$$\therefore x = \frac{260}{2} = 130$$

∴ 130 jambhul trees were planted.

Question 6.

Shubhangi has twice as many 20-rupee notes as she has 50-rupee notes. Altogether, she has 2700 rupees. How many 50-rupee notes does she have?

Solution:

Let the number of 50-rupee notes with shubhangi be x .

∴ Number of 20-rupee notes = $2x$

∴ Total amount with Shubhangi = Number of 50-rupee notes $\times$ 50 + Number of 20-rupee notes $\times$ 20

$$= x \times 50 + 2x \times 20$$

$$= 50x + 40x$$

$$= 90x$$

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According to the given condition,

$$90x = 2700$$

$$\therefore x = \frac{2700}{90} = 30$$

$\therefore$ Shubhangi has 30 notes of 50 rupees.

Question 7.

Virat made twice as many runs as Rohit. The total of their scores is 2 less than a double century. How many runs did each of them make?

Solution:

Let the runs made by Rohit be x .

$$\therefore \text{Runs made by Virat} = 2x$$

According to the given condition,

$$x + 2x = 200 - 2$$

$$\therefore 3x = 198$$

$$\therefore x = \frac{198}{3} = 66$$

$$\therefore \text{Runs made by Virat} = 2x = 2 \times 66 = 132$$

$\therefore$ The runs made by Virat and Rohit are 132 and 66 respectively.

Intext Questions and Activities

Question 1.

Solve the following equations. (Textbook pg. no. 59)

i. $x + 7 = 4$

ii. $4p = 12$

iii. $m - 5 = 4$

iv. $t3=6$

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Solution:

i. $x + 7 = 4$

$\therefore x + 7 - 7 = 4 - 7$ (Subtracting 7 from both sides)

$\therefore x + 0 = -3$

$\therefore x = -3$

ii. $4p = 12$

$\therefore 4p \div 4 = 12 \div 4$ (Dividing both sides by 4)

$\therefore p = 3$

iii. $m - 5 = 4$

$\therefore m - 5 + 5 = 4 + 5$

.... (Adding 5 to both sides)

$\therefore m + 0 = 9$

$\therefore m = 9$

iv. $t \div 3 = 6$

$\therefore t \div 3 \times 3 = 6 \times 3$ (Multiplying both sides by 3)

$\therefore t = 18$



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- Chapter 1- Geometrical Constructions (Practice Set 5)
- Chapter 1- Geometrical Constructions (Practice Set 6)
- Chapter 1- Geometrical Constructions (Practice Set 7)
- Chapter 2- Multiplication and Division of Integers (Practice Set 8)
- Chapter 2- Multiplication and Division of Integers (Practice Set 9)
- Chapter 3- HCF and LCM (Practice Set 10)
- Chapter 3- HCF and LCM (Practice Set 11)
- Chapter 3- HCF and LCM (Practice Set 12)
- Chapter 3- HCF and LCM (Practice Set 13)
- Chapter 3- HCF and LCM (Practice Set 14)
- Chapter 4- Angles and Pairs of Angles (Practice Set 15)
- Chapter 4- Angles and Pairs of Angles (Practice Set 16)
- Chapter 4- Angles and Pairs of Angles (Practice Set 17)
- Chapter 4- Angles and Pairs of Angles (Practice Set 18)
- Chapter 4- Angles and Pairs of Angles (Practice Set 19)
- Chapter 4- Angles and Pairs of Angles (Practice Set 20)
- Chapter 4- Angles and Pairs of Angles (Practice Set 21)

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- Chapter 5- Operations on Rational Numbers (Practice Set 22)
- Chapter 5- Operations on Rational Numbers (Practice Set 23)
- Chapter 5- Operations on Rational Numbers (Practice Set 24)
- Chapter 5- Operations on Rational Numbers (Practice Set 25)
- Chapter 6- Indices (Practice Set 26)
- Chapter 6- Indices (Practice Set 27)
- Chapter 6- Indices (Practice Set 28)
- Chapter 6- Indices (Practice Set 29)
- Chapter 6- Indices (Practice Set 30)
- Chapter 7- Joint Bar Graph (Practice Set 31)
- Chapter 8- Algebraic Expressions and Operations on them (Practice Set 32)
- Chapter 8- Algebraic Expressions and Operations on them (Practice Set 33)
- Chapter 8- Algebraic Expressions and Operations on them (Practice Set 34)
- Chapter 8- Algebraic Expressions and Operations on them (Practice Set 35)
- Chapter 8- Algebraic Expressions and Operations on them (Practice Set 36)
- Chapter 9- Direct Proportion and Inverse Proportion (Practice Set 37)
- Chapter 9- Direct Proportion and Inverse Proportion (Practice Set 38)
- Chapter 9- Direct Proportion and Inverse Proportion (Practice Set 39)
- Chapter 10- Bank and Simple Interest (Practice Set 40)
- Chapter 10- Bank and Simple Interest (Practice Set 41)
- Chapter 11- Circle (Practice Set 42)

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- Chapter 11- Circle (Practice Set 43)
- Chapter 12- Perimeter and Area (Practice Set 44)
- Chapter 12- Perimeter and Area (Practice Set 45)
- Chapter 12- Perimeter and Area (Practice Set 46)
- Chapter 12- Perimeter and Area (Practice Set 47)
- Chapter 13- Pythagoras Theorem (Practice Set 48)
- Chapter 13- Pythagoras Theorem (Practice Set 49)
- Chapter 14- Algebraic Formulae - Expansion of Squares (Practice Set 50)
- Chapter 14- Algebraic Formulae - Expansion of Squares (Practice Set 51)
- Chapter 14- Algebraic Formulae - Expansion of Squares (Practice Set 52)
- Chapter 14- Algebraic Formulae - Expansion of Squares (Practice Set 53)
- Chapter 15- Statistics (Practice Set 54)
- Chapter 14- Statistics (Practice Set 55)

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About About Maharashtra State Board (MSBSHSE)

The Maharashtra State Board of Secondary and Higher Secondary Education or MSBSHSE (Marathi: महाराष्ट्र राज्य माध्यमिक आणि उच्च माध्यमिक शिक्षण मंडळ), is an **autonomous and statutory body established in 1965**. The board was amended in the year 1977 under the provisions of the Maharashtra Act No. 41 of 1965.

The Maharashtra State Board of Secondary & Higher Secondary Education (MSBSHSE), Pune is an independent body of the Maharashtra Government. There are more than 1.4 million students that appear in the examination every year. The Maha State Board conducts the board examination twice a year. This board conducts the examination for SSC and HSC.

The Maharashtra government established the Maharashtra State Bureau of Textbook Production and Curriculum Research, also commonly referred to as Ebalbharati, in 1967 to take up the responsibility of providing quality textbooks to students from all classes studying under the Maharashtra State Board. MSBHSE prepares and updates the curriculum to provide holistic development for students. It is designed to tackle the difficulty in understanding the concepts with simple language with simple illustrations. Every year around 10 lakh students are enrolled in schools that are affiliated with the Maharashtra State Board.

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FAQs

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Who developed the Maharashtra State board books?

As of now, the MSCERT and Balbharti are responsible for the syllabus and textbooks of Classes 1 to 8, while Classes 9 and 10 are under the Maharashtra State Board of Secondary and Higher Secondary Education (MSBSHSE).

How many state boards are there in Maharashtra?

The Maharashtra State Board of Secondary & Higher Secondary Education, conducts the HSC and SSC Examinations in the state of Maharashtra through its nine Divisional Boards located at Pune, Mumbai, Aurangabad, Nasik, Kolhapur, Amravati, Latur, Nagpur and Ratnagiri.

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