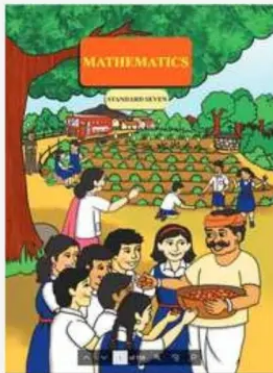


Maharashtra Board Solutions Class 7-Maths (Practice Set 16): Chapter 4- Angles and Pairs of Angles

BOOK SOLUTIONS
CLASS 7
MATHS

CHAPTER 4
Angles and Pairs of Angles

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 16): Chapter 4- Angles and Pairs of Angles

Class 7: Maths Chapter 4 solutions. Complete Class 7 Maths Chapter 4 Notes.

Maharashtra Board Solutions Class 7-Maths (Practice Set 16): Chapter 4- Angles and Pairs of Angles

Maharashtra Board 7th Maths Chapter 4, Class 7 Maths Chapter 4 solutions

Question 1.

The measures of some angles are given below. Write the measures of their complementary angles.

i. 40°

ii. 63°

iii. 45°

iv. 55°

v. 20°

vi. 90°

vii. x°

Solution:

i. Let the measure of the complementary angle be x° .

$$\therefore 40 + x = 90$$

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$$\therefore 40 + x - 40 = 90 - 40$$

....(Subtracting 40 from both sides)

$$\therefore x = 50$$

$\therefore$ The measure of the complement of an angle of measure 40° is 50° .

ii. Let the measure of the complementary angle be x° .

$$\therefore 63 + x = 90$$

$$\therefore 63 + x - 63 = 90 - 63$$

....(Subtracting 63 from both sides)

$$\therefore x = 27$$

$\therefore$ The measure of the complement of an angle of measure 63° is 27° .

iii. Let the measure of the complementary angle be x° .

$$\therefore 45 + x = 90$$

$$\therefore 45 + x - 45 = 90 - 45$$

....(Subtracting 45 from both sides)

$$\therefore x = 45$$

$\therefore$ The measure of the complement of an angle of measure 45° is 45° .

iv. Let the measure of the complementary angle be x° .

$$\therefore 55 + x = 90$$

$$\therefore 55 + x - 55 = 90 - 55$$

....(Subtracting 55 from both sides)

$$\therefore x = 35$$

$\therefore$ The measure of the complement of an angle of measure 55° is 35° .

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v. Let the measure of the complementary angle be x° .

$$\therefore 20 + x = 90$$

$$\therefore 20 + x - 20 = 90 - 20$$

....(Subtracting 20 from both sides)

$$\therefore x = 70$$

$\therefore$ The measure of the complement of an angle of measure 20° is 70° .

vi. Let the measure of the complementary angle be x° .

$$\therefore 90 + x = 90$$

$$\therefore 90 + x - 90 = 90 - 90$$

....(Subtracting 90 from both sides)

$$\therefore x = 0$$

$\therefore$ The measure of the complement of an angle of measure 90° is 0° .

vii. Let the measure of the complementary angle be a° .

$$\therefore x + a = 90$$

$$\therefore x + a - x = 90 - x$$

....(Subtracting x from both sides)

$$\therefore a = (90 - x)$$

$\therefore$ The measure of the complement of an angle of measure x° is $(90 - x)^\circ$.

Question 2.

$(y - 20)^\circ$ and $(y + 30)^\circ$ are the measures of complementary angles. Find the measure of each angle.

Solution:

$(y - 20)^\circ$ and $(y + 30)^\circ$ are the measures of complementary angles.

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$$\therefore (y - 20) + (y + 30) = 90$$

$$\therefore y + y + 30 - 20 = 90$$

$$\therefore 2y + 10 = 90$$

$$\therefore 2y = 90 - 10$$

$$\therefore 2y = 80$$

$$\therefore y = 40$$

$$= 40$$

$$\text{Measure of first angle} = (y - 20)^\circ = (40 - 20)^\circ = 20^\circ$$

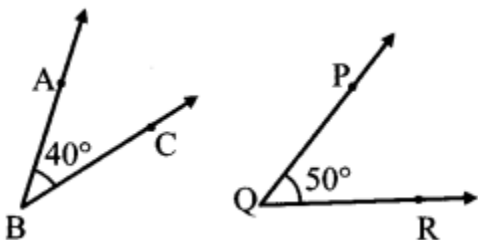
$$\text{Measure of second angle} = (y + 30)^\circ = (40 + 30)^\circ = 70^\circ$$

$\therefore$ The measure of the two angles is 20° and 70° .

Intext Questions and Activities

Question 1.

Observe the angles in the figure and enter the proper number in the empty place.
(Textbook pg. no. 26)



1. $m\angle ABC = \underline{\quad}^\circ$.
2. $m\angle PQR = \underline{\quad}^\circ$.
3. $m\angle ABC + m\angle PQR = \underline{\quad}^\circ$.

Solution:

1. 40
2. 50

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3. 90

Note: Here, the sum of the measures of $\angle ABC$ and $\angle PQR$ is 90° . Therefore, they are complementary angles.



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- 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 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)
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- Chapter 14- Algebraic Formulae - Expansion of Squares (Practice Set 52)
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- 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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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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