

DELHI PUBLIC SCHOOL JAMMU

SESSION 2021-2022

ASSIGNMENT-3

Date: 15 November 2021

CLASS: VII

TOPIC: COMPARING QUANTITIES
CONGRUENCE OF TRIANGLES

SUBJECT: MATHS

Based on your understanding of the E-Lectures-cum-PPT's, video links
And other e-resources shared with you, answer the following questions.

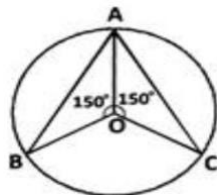
Case Study Questions (2×4= 8)

1. Here is a set of cards



- i) The ratio of face-up cards to the whole set:
a) 8:13 b) 8:5 c) 13:8 d) 5:8
- ii) The ratio of face-down cards to the whole set:
a) 6:8 b) 5:13 c) 13:5 d) 5:8
- iii) The ratio of face-down to face-up cards (in fraction form):
a) $\frac{8}{5}$ b) $\frac{8}{13}$ c) $\frac{5}{13}$ d) $\frac{5}{8}$
- iv) The percentage of face-up cards is
a) 61.54% b) 38.46% c) 160% d) 62.5%

2. AB and AC are two chords of a circle with centre O as shown in the figure.

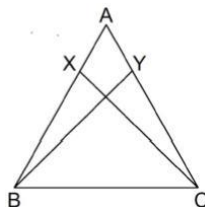


- i) $\triangle AOB \cong$ _____
a) $\triangle ACO$ b) $\triangle AOC$ c) $\triangle CAO$ d) $\triangle OAC$
- ii) $AO =$ _____
a) AB b) AC c) BC d) BO
- iii) $\angle AOB =$ _____
a) $\angle OAC$ b) $\angle ACO$ c) $\angle AOC$ d) None of these
- iv) Which criteria is used to prove part (i)?
a) ASA b) SAS c) SSS d) RHS

Assertion Reasoning Questions (2×1=2)

Directions for question 3 and 4: In each of the questions given below, there are two statements marked Assertion and Reason. Mark your answers as per the codes provided below:

3. Assertion: In the adjoining figure, X and Y are respectively two points on equal sides AB and AC of $\triangle ABC$ such that $AX = AY$ then $CX = BY$



Reason: If two sides and the included angle of one triangle are equal to two sides and the included angle of the other triangle, then the two triangles are congruent.

- A) Both assertion and reason are correct and reason is the correct explanation for assertion.
- B) Both assertion and reason are correct but reason is not the correct explanation for assertion.
- C) Assertion is correct but the reason is incorrect.
- D) Both assertion and reason are incorrect.

4. Assertion: Anita's Report Card reflects her total marks as 320/400.

Thus, she got 80% marks.

Reason: Percentages are numerators of fractions with denominator 100.

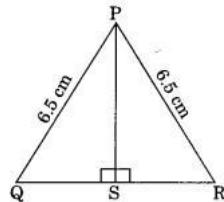
And, $320/400 = 80/100$.

- A) Both assertion and reason are correct and reason is the correct explanation for assertion.
- B) Both assertion and reason are correct but reason is not the correct explanation for assertion.
- C) Assertion is correct but the reason is incorrect.
- D) Both assertion and reason are incorrect.

Short Type Questions (2×2=4)

5. If Karthik gives an interest of ₹ 135 for 3 years at 9% per annum, what sum did he borrow?

6. In the following figure, show that $\triangle PSQ \cong \triangle PSR$.

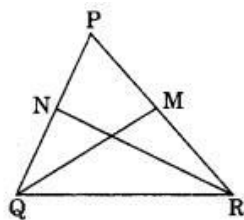


Long Answer Type Questions (2×3=6)

7. Ramesh buys a table for ₹ 3040 and loses 10% on its sale. What is the selling price of the table?

8. In the given figure, PQR is a triangle in which PQ = PR. QM and RN are the medians of the triangle. Prove that

- (i) $\triangle NQR = \triangle MRQ$
- (ii) $QM = RN$
- (iii) $\triangle PMQ = \triangle PNR$



Note: 1. Due date of submission: 22 November, 2021

2. Email/send your assignment as a PDF file to the concerned teachers, whose email ID's/Whatsapp no. are shared as follows:

Class VII-A	Ms. Namrata Gupta	Sparshgupta710@gmail.com
Class VII-B,C	Mr. Raj Kumar	raj.vasi@yahoo.com
Class VII-D	Ms. Meenakshi Kohli	meenakshi.kohli16@gmail.com
Class VII-E,F	Ms. Ambika Sharma	ambica.1sharma@gmail.com
Class VII-G,H	Mr. Sumit Gupta	gupta31318@gmail.com
Class VII-I	Mr. Sahil Sharma	sahil.sharma98589@gmail.com
Class VII-J, K	Ms. Navneet Kaur	ritunavneet@live.com
Class VII-L	Ms. Ankita Sharma	29ankita09@gmail.com

3. Students must mention their name, class/section and date in their assignments

4. Your assignment will be marked for Internal /Term assessments. Therefore, it is necessary for you to submit it on time.