

Practice Worksheet Post Mid term

Class VIII

1. Case Study: A person is standing on a railway station which is 120 m long. He observes that the trains cross the station in 30 sec but himself in 6 seconds.
 - i) Find the length of the train.
 - ii) Find the speed of the train.
 - iii) If a train is moving at speed of 78 km/hr, how far will it travel in 20 minutes also find the time required to cover a distance of 240 km.
2. Which of the following is obtained by subtracting $x^2 - y^2$ from $y^2 - x^2$?
 - i) $-2(x^2 - y^2)$
 - ii) $-2(x^2 + y^2)$
 - iii) $2(x^2 + y^2)$
 - iv) $2(x^2 - y^2)$
3. Case Study: There is a group of students going for an excursion. Out of which 60% of them are girls. Number of boys in the group is 120. All the students are going on 6 buses and all the seats of the busses are full.
 - i) What is the total number of students in the group?
 - ii) How many girls are there in the group?
 - iii) How many seats are there in each bus excluding the driver's seat if all the buses have equal no. of Seats?
4. The multiplicative inverse of 10^5 is
 - i) 5
 - ii) 10
 - iii) 10^{-5}
 - iv) 10^5
5. A person can paint a 2.5 ft^2 of a wall in 5 minutes. How much ft^2 of the wall will he paint in 6 hours?
 - i) 120
 - ii) 160
 - iii) 140
 - iv) 180
6. $[(1/2)^{-1} + (2/3)^2 - (3/4)^0]^{-2}$ is equal to:
 - i) $81/484$
 - ii) $81/169$
 - iii) $169/81$
 - iv) $16/81$
7. **Assertion (A) –15 men can mow 40 hectares of land in 1 day. 6 men mow in 1 day=16 hectares**
Reasons (R) –A direct proportion shows the direct the relation between two quantities.
 - a) Both A and R are true and R is the correct explanation of A
 - b) Both A and R are true but R is not the correct explanation of A
 - c) A is true but R is false
 - d) A is false but R is true
8. **Assertion (A) –Out of 40 students in a class, 25% passed. Passed students= 10**
Reasons (R) –A fraction represents a part of a whole or, more generally, any number of equal parts
 - a) Both A and R are true and R is the correct explanation of A

- b) Both A and R are true but R is not the correct explanation of A
 - c) A is true but R is false
 - d) A is false but R is true
9. Case Study: Rahul borrowed a Sum of Rs 12000 at a certain rate for 3 years Compounded annually. At the end of 3 Years. He paid interest of Rs 3972. During these 3 Years. He bought a TV worth Rs 12000 Which value depreciated by 5% each year.
- i) What is the rate of interest of the sum lend to Rahul?
 - ii) Find the difference between the SI & CI of the Sum for 3 years?
 - iii) What is the value of the TV bought by Rahul at the end of 3 years.
10. **Assertion (A) – $(-2)^{-2}$ is equal to $1/4$**
Reasons (R) –The power of a number says how many times to use the number in a multiplication
- a) Both A and R are true and R is the correct explanation of A
 - b) Both A and R are true but R is not the correct explanation of A
 - c) A is true but R is false
 - d) A is false but R is true