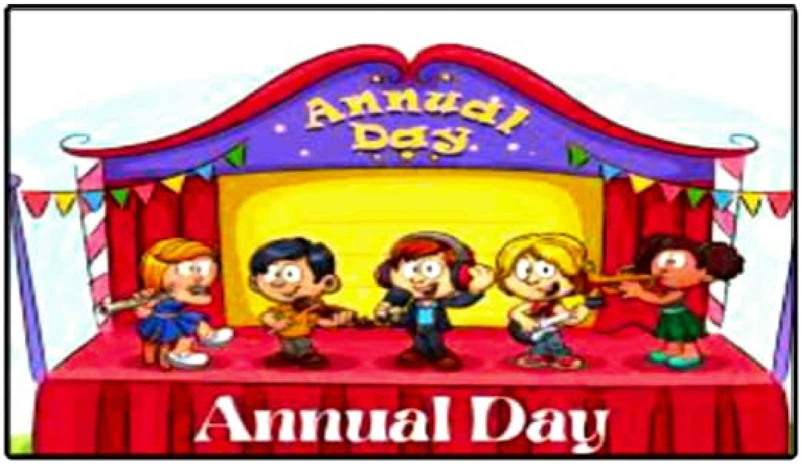
CHAPTER 07: Comparing Quantities

CASE STUDY 01

Sunrise Public School organized its Annual Day event, inviting students, parents, and teachers to celebrate the school's achievements. Out of **800 students, 25%** participated in various performances such as dance, drama, and music. Among the participants, **40% were from the junior section** (Classes I to V) and the rest from the senior section (Classes VI to X).
Additionally, **15% of the total students** were involved in event management and hospitality services. The remaining students attended the event as the audience.



Answer the following questions:

1. How many students participated in performances from the junior section?
2. How many students were involved in event management and hospitality services?
3. Calculate the number of students who attended the event as the audience.

CASE STUDY 02

The price of apples in market was **₹120 per kg** in January. Due to high demand during the festive season, the price increased by **15%** in March. However, after the festival, the price decreased by **10%** in May.

Answer the following questions:

1. What was the price of apples per kg in March after the 15% increase?
2. What was the price of apples per kg in May after the 10% decrease?
3. Calculate the overall percentage change in the price of apples from January to May.

CASE STUDY 03

Riya runs a small handicraft business where she makes and sells handmade bags. She started her business with an initial investment of ₹50,000. She buys raw materials from a wholesale market and sells the finished bags online.

In the month of August, Riya bought raw materials for ₹30,000. She also spent ₹5,000 on packaging and delivery. After completing the production, she listed the bags for sale at a total marked price of ₹60,000. To attract more customers, she offered a **10% discount** on the marked price.

By the end of the month, Riya was able to sell 90% of the bags. However, she incurred an additional expense of ₹3,000 for marketing and advertisements.

Answer the following questions:

1. Calculate the total discount given on the marked price.
2. Calculate the selling price of the bags after the discount.
3. Calculate Riya's profit or loss, along with the profit/loss percentage, for the month of August.
4. If Riya decides to increase the selling price by 5% after applying the discount, what will be the new selling price of the bags?
5. If Riya had sold all the bags without giving a discount, what would have been her profit percentage?
6. If Riya wants to achieve a **20% profit** on her total cost next month, what should be the minimum total marked price (assuming the discount and expenses remain unchanged)?