1. Find the number of two-digit numbers which are divisible by 6.
2. Which term of the A.P. 3, 14, 25, 36, ... will be 99 more than its 25th term?
3. How many natural numbers are there between 200 and 500, which are divisible by 7?
4. How many two-digit numbers are divisible by 7?
5. If $\dfrac{1}{x+2}, \dfrac{1}{x+3}$ and $\dfrac{1}{x+5}$ are in A.P., find the value of x.
6. How many three digit numbers are divisible by 11?
7. In an AP, the first term is 12 and the common difference is 6. If the last term of the A.P. is 252, find its middle term.

1. Show that $a - b$, a and $a + b$ form consecutive terms of an AP.

2. How many terms are there in the AP: $-1, \dfrac{-5}{6}, \dfrac{-2}{3}, \dfrac{-1}{2}, ..., \dfrac{10}{3}$?

3. The nth term of an AP is $7 - 4n$. Find its common difference.

4. The nth term of an AP is $6n + 2$. Find its common difference.

5. Find the number of terms in the AP: $17, 14\dfrac{1}{2}, 12, ..., -38$.

6. The fifth term of an AP is 1 whereas its 31st term is -77. Which term of the AP is -17?

7. Find the 10th term from end of the AP: $4, 9, 14, ..., 254$.

8. If m times the mth term of an AP is equal to 'n' times its nth term, find its $(m + n)$th term.

9. Find $a_{20} - a_{10}$ for the AP:

   (i) $-9, -14, -19, -24, ...$ (ii) $a, a + d, a + 2d, a + 3d, ...$

1. Determine the AP whose fourth term is 18 and the difference of the ninth term from the fifteenth term is 30.

2. The 17th term of an A.P. is 5 more than twice is 8th term. If the 11th term of the A.P. is 43, then find its nth term.

3. If the seventh term of an AP is $\dfrac{1}{9}$ and its ninth term is $\dfrac{1}{7}$, find its 63rd term.

4. The pth, qth and rth terms of an A.P. are a, b and c respectively. Show that $a(q - r) + b(r - p) + c(p - q) = 0$.

Long Answer Type Questions

5. Two APs have the same common difference. The first term of one of these is -1 and that of the other is -8. What is the difference between their 4th terms?

6. The 19th term of an AP is equal to three times its sixth term. If its 9th term is 19, find the AP.

7. The sum of the 4th and 8th terms of an AP is 24 and the sum of the 6th and 10th terms is 44. Find the first three terms of the A.P.

8. If 5th term of an AP is zero, show that its 33rd term is four times its 12th term.

9. The eighth term of an AP is half its second term and the eleventh term exceeds one-third of its fourth term by 1. Find the 15th term.

10. The sum of three numbers of an AP is 27 and their product is 405. Find the numbers.