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O1 Find the first 6 terms of the arithmetic progression for each of the following situations .
(a) $a=6 \quad d=4$
(b) $a=2 d=5$
(c) $a=2 y \quad d=2 y+2$
2. Find the indicated term of each of the following arithmetic progression .
(a) $9,15,21 \ldots \ldots(10$ th term $)$
(b) $35,50,65 \ldots . .(18$ th term $)$
(c) $24,50,65 \ldots \ldots(12$ th term $)$
(d) $10.5,17.5,24.5 \ldots .(18$ th term $)$
3. Using the given information, find the term of the rlevant arithmetic progression for each of the following situations .
(a) $\mathrm{d}=5 \quad \mathrm{~T}_{8}=45$
(b) $\mathrm{d}=8 \quad \mathrm{~T}_{10}=77$

4 Find the number of multiples of 8 between 50 and 500 .
5 Find the sum of the following arithmetic progressions.,
(a) $3,7,11 \quad \mathrm{n}=30$
(b) $5,15,25,35 \quad \mathrm{n}=15$

6 The n th term of an arithmetic progression is given by $\mathrm{T}_{\mathrm{n}}=2 \mathrm{x}+3 \mathrm{nx}$
(a) Write down first four terms.
(b) Find the sum of the first 15 terms .
(c) Find the 18 th term .

7 Solve each of the following inequities
(a) $5 x+2>7$
(b) $7 x-1<10$
(c) $12-4 y \leq 0$
(d)
$8 x<2$ yd $y>-3$ aaaaa a aaaaa) $5 \mathrm{x}+2>7$ b) $7 \mathrm{x}-1<10$ c) $12-4 \mathrm{y}<=0$
$9 x<3 \quad y>5 \quad 9)$ Shade the region satisfying the inequities $x<2$ and $y>-3$ in a Cartesian plane.
10 information on the mass of goods exchanged by a courier service is given in the following frequency distribution.

| mass $(\mathrm{g})$ | mid value | frequency |
| :--- | :--- | :--- |
| $100-102$ |  | 20 |
| $102-104$ |  | 12 |
| $104-106$ |  | 25 |
| $106-108$ |  | 8 |
| $108-110$ |  | 13 |
| $110-112$ |  | 14 |

(a) Complete the mid value column.
(b) Calculate the mean mass of exchanged goods.
(c) if Rs 3 is charged for a 1 gram of exchanged goods by the courier service, find the mean income that the company can expect.

11 A frequency distribution containing information on the number of telecasting hours of several educational programs of a certain television channel is given below.

| telecasting time (minutes ) | number of programs |
| :--- | :--- |
| $20-30$ | 4 |
| $30-40$ | 5 |
| $40-50$ | 6 |
| $50-60$ | 2 |
| $60-70$ | 3 |
| $70-80$ | 1 |
| $80-90$ | 2 |
| $90-100$ | 3 |
| $100-110$ | 4 |

a) What is the modal class of this distribution.
b) Find the mean telecasting time by taking the mid value of the class interval 6070 as the assumed mean.

