Miscellaneous Problems : Set 1

1. Solve the following :

(i) $(-16) \times (-5)$

Solution : $(-16) \times (-5) = 80$

(ii) $(72) \div (-12)$

Solution :

$$72 \div (-12) = \frac{1 \times 72}{(-1) \times 12}$$

$$= \frac{1 \times 12 \times 6}{(-1) \times 12}$$

$$= \frac{1}{(-1)} \times 6$$

$$= (-1) \times 6$$

$$= -6$$

(iii) $(-24) \times (2)$

Solution :

$(-24) \times 2 = -48$

(iv) $125 \div 5$

Solution :

$125 \div 5 = \frac{125}{5}$

$= \frac{5 \times 25}{5}$

$= 5 \times 5$

$= 25$

(v) $(-104) \div (-13)$

Solution :

$(-104) \div (-13) = \frac{(-104)}{(-13)}$

$= \frac{(-1) \times 104}{(-1) \times 13}$

$= \frac{1 \times 8 \times 13}{13}$

$= 1 \times 8$

$= 8$

(vi) $25 \times (-4)$

Solution :

$25 \times (-4) = -100$

2. Find the prime factors of the following numbers and find their LCM and HCF.

(i) 75, 135

Solution :

75, 135

$75 = 3 \times 25$

$= \underline{3} \times \underline{5} \times 5$

$135 = 3 \times 45$

$= \underline{3} \times \underline{5} \times 9$

$= \underline{3} \times \underline{5} \times 3 \times 3$

$\therefore$ LCM $= 3 \times 3 \times 3 \times 5 \times 5 = 675$

$\therefore$ HCF $= 3 \times 5 = 15$

(ii) 114, 76

Solution :

114, 76

$114 = 2 \times 57$

$= 2 \times 3 \times 19$

$76 = 2 \times 38$

$= 2 \times 2 \times 19$

$\therefore$ LCM $= 2 \times 2 \times 3 \times 19 = 228$

$\therefore$ HCF $= 2 \times 19 = 38$

(iii) 153, 187

Solution :

153, 187

$153 = 3 \times 51$

$= 3 \times 3 \times 17$

$187 = 11 \times 17$

$\therefore$ LCM $= 3 \times 3 \times 11 \times 17 = 1683$

$\therefore$ HCF $= 17$

(iv) 32, 24, 48

Solution :

32, 24, 48

$32 = 2 \times 16$

$= 2 \times 2 \times 8$

$= 2 \times 2 \times 2 \times 4$

$= \underline{2} \times \underline{2} \times \underline{2} \times 2 \times 2$

$24 = 2 \times 12$

$= 2 \times 2 \times 6$

$= \underline{2} \times \underline{2} \times \underline{2} \times \underline{3}$

$48 = 2 \times 24$

$= 2 \times 2 \times 12$

$= 2 \times 2 \times 2 \times 6$

$= \underline{2} \times \underline{2} \times \underline{2} \times 2 \times \underline{3}$

$\therefore$ LCM $= 2 \times 2 \times 2 \times 2 \times 2 \times 3 = 96$

HCF $= 2 \times 2 \times 2 = 8$

3. Simplify.

(i) $\frac{322}{391}$

Solution :

To reduce the number to its simplest form, we will find the common factors of 322 and 247.

Let us find their HCF by the division method.

322) 391 (1
− 322
69) 322 (4
− 276
46) 69 (1
− 46
23) 46 (2
− 46
00

$\therefore$ HCF is 23. i.e. the numerator and denominator are both divisible by 23.

$$\therefore \frac{322}{391} = \frac{322 \div 23}{391 \div 23} = \frac{14}{17}$$

(ii) $\frac{247}{209}$

Solution :

Meothod (I) :

$$\frac{247}{209} = \frac{19 \times 13}{19 \times 11} = \frac{13}{11}$$

$$\therefore \frac{247}{209} = \frac{13}{11}$$

Meothod (II) :

To reduce the number to its simplest form, we will find the common factors of 247 and 209.

Let us find HCF of 247 and 209 by the division method.

$$209\overline{)247}(1$$
$$-209$$
$$38\overline{)209}(5$$
$$-190$$
$$19\overline{)38}(2$$
$$-38$$
$$00$$

$\therefore$ HCF is 19 . i.e. the numerator and denominator are both divisible by 19.

$$\therefore \frac{247}{209} = \frac{247 \div 19}{209 \div 19} = \frac{13}{11}$$

(ii) $\frac{117}{156}$

Solution :

Meothod (I):

$$\frac{117}{156} = \frac{39 \times 3}{39 \times 4} = \frac{3}{4}$$

$$\therefore \frac{117}{156} = \frac{3}{4}$$

Method (II):

Let us find HCF of 117 and 156 by the division method.

$$
\begin{array}{l}
117 \overline{)\,156\,(\,1} \\
\quad -\,117 \\
\hline
\quad 39 \overline{)\,117\,(\,3} \\
\quad\quad -\,117 \\
\hline
\quad\quad\quad 000
\end{array}
$$

$\therefore$ HCF is 39 . i.e. the numerator and denominator are both divisible by 39.

$\therefore \frac{117}{156} = \frac{117 \div 39}{156 \div 39} = \frac{3}{4}$

4. Find the square root of the following numbers.

(i) 784

Solution :

$784 = 2 \times 392$

$= 2 \times 2 \times 196$

$= 2 \times 2 \times 2 \times 98$

$= 2 \times 2 \times 2 \times 2 \times 49$

$= \underline{2 \times 2} \times \underline{2 \times 2} \times \underline{7 \times 7}$

$\therefore \sqrt{784} = 2 \times 2 \times 7 = 28$

$\therefore$ The square root of 784 is 28.

(ii) 225

Solution :

$225 = 3 \times 75$

$= 3 \times 3 \times 25$

$= \underline{3 \times 3} \times \underline{5 \times 5}$

$\therefore \sqrt{225} = 3 \times 5 = 15$

$\therefore$ The square root of 225 is 15.

(iii) 1296

Solution :

$1296 = 2 \times 648$

$= 2 \times 2 \times 324$

$= 2 \times 2 \times 2 \times 162$

$= 2 \times 2 \times 2 \times 2 \times 81$

$= 2 \times 2 \times 2 \times 2 \times 3 \times 27$

$= 2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 9$

$= \underline{2 \times 2} \times \underline{2 \times 2} \times \underline{3 \times 3} \times \underline{3 \times 3}$

$\therefore \sqrt{1296} = 2 \times 2 \times 3 \times 3 = 36$

$\therefore$ The square root of 1296 is 36

(iv) 2025

Solution :

$2025 = 3 \times 675$

$= 3 \times 3 \times 225$

$= 3 \times 3 \times 3 \times 75$

$= 3 \times 3 \times 3 \times 3 \times 25$

$= \underline{3 \times 3} \times \underline{3 \times 3} \times \underline{5 \times 5}$

$\therefore \sqrt{2025} = 3 \times 3 \times 5 = 45$

$\therefore$ The square root of 2025 is 45

(v) 256

Solution :

$256 = 2 \times 128$

$= 2 \times 2 \times 64$

$= 2 \times 2 \times 2 \times 32$

$= 2 \times 2 \times 2 \times 2 \times 16$

$= 2 \times 2 \times 2 \times 2 \times 2 \times 8$

$= 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 4$

$= \underline{2 \times 2} \times \underline{2 \times 2} \times \underline{2 \times 2} \times \underline{2 \times 2}$

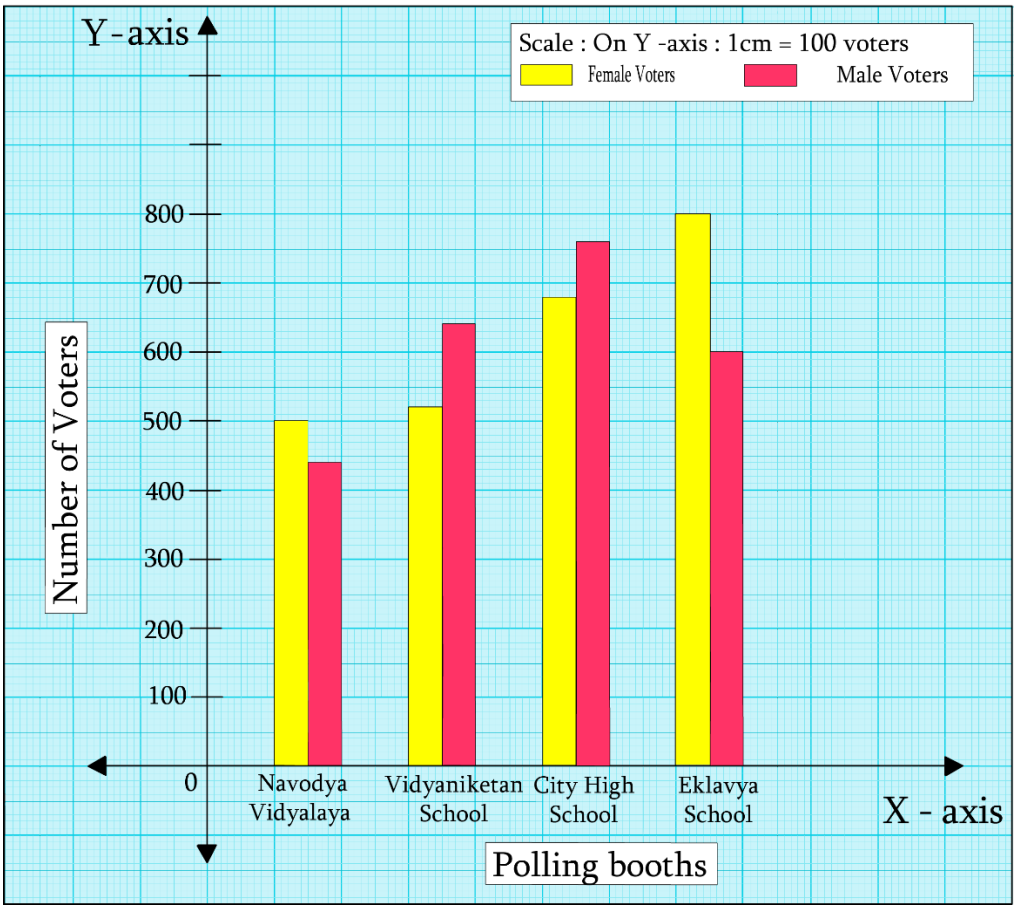
$\therefore \sqrt{256} = 2 \times 2 \times 2 \times 2 = 16$

$\therefore$ The square root of 256 is 16.

5. There are four polling booths for a certain election. The numbers of men and women who cast their vote at each booth is given in the table below. Draw a joint bar graph for this data.

Polling Booths	Navodaya Vidyalaya	Vidyaniketan School	City High School	Eklavya School
Women	500	520	680	800
Men	440	640	760	600

Ans.:



6. Simplify the expressions.

(i) $45 \div 5 + 20 \times 4 - 12$

Solution :

$\because \quad 45 \div 5 + 20 \times 4 - 12$

$= 9 + 80 - 12$

$= 89 - 12$

$= 77$

$\therefore \quad 45 \div 5 + 20 \times 4 - 12 = 77$

(ii) $(38 - 8) \times 2 \div 5 + 13$

Solution :

$\because (38 - 8) \times 2 \div 5 + 13$

$= 30 \times 2 \div 5 + 13$

$= 60 \div 5 + 13$

$= 12 + 13$

$= 25$

$\therefore (38 - 8) \times 2 \div 5 + 13 = 25$

(iii) $\frac{5}{3} + \frac{4}{7} \div \frac{32}{21}$

Solution :

$\because \frac{5}{3} + \frac{4}{7} \div \frac{32}{21}$

$= \frac{5}{3} + \frac{4}{7} \times \frac{21}{32}$

$= \frac{5}{3} + \frac{3}{8}$

$= \frac{5 \times 8 + 3 \times 3}{3 \times 8}$

$= \frac{40 + 9}{24}$

$= \frac{49}{24}$

$\therefore \ \frac{5}{3} + \frac{4}{7} \div \frac{32}{21} = \frac{49}{24}$

(iv) $3 \times \{ 4 [85 + 5 - (15 \div 3)] + 2 \}$

Solution :

$\because 3 \times \{ 4 [85 + 5 - (15 \div 3)] + 2 \}$

$= 3 \times \{ 4 [85 + 5 - 5)] + 2 \}$

$= 3 \times \{ 4 (85) + 2 \}$

$= 3 \times \{ 340 + 2 \}$

$= 3 \times 342$

$= 1026$

$\therefore 3 \times \{ 4 [85 + 5 - (15 \div 3)] + 2 \} = 1026$

7. Solve.

(i) $\frac{5}{12} + \frac{7}{16}$

Solution :

$\because \frac{5}{12} + \frac{7}{16} = \frac{5 \times 4}{48} + \frac{7 \times 3}{48}$ ……(LCM of 12 and 16 is 48)

$= \frac{20}{48} + \frac{21}{48}$

$= \frac{20 + 21}{48} = \frac{41}{48}$

$\therefore \frac{5}{12} + \frac{7}{16} = \frac{41}{48}$

(ii) $3\frac{2}{5} - 2\frac{1}{4}$

Solution :

$\because 3\frac{2}{5} - 2\frac{1}{4} = \frac{3 \times 5 + 2}{5} - \frac{2 \times 4 + 1}{4}$

$= \frac{17}{5} - \frac{9}{4}$

$= \frac{17 \times 4}{5 \times 4} - \frac{9 \times 5}{4 \times 5}$

$= \frac{68}{20} - \frac{45}{20}$ ……(LCM of 5 and 4 is 20)

$$= \frac{68 - 45}{20} = \frac{23}{20}$$

$\therefore 3\ \frac{2}{5} - 2\ \frac{1}{4} = \frac{23}{20}$

(iii) $\frac{12}{5} \times \frac{(-10)}{3}$

Solution :

$$\frac{12}{5} \times \frac{(-10)}{3} = \frac{12 \times (-10)}{5 \times 3}$$

$$= \frac{3 \times 4 \times (-2) \times (5)}{5 \times 3}$$

$$= 4 \times (-2)$$

$$= -8$$

$\therefore \frac{12}{5} \times \frac{(-10)}{3} = -8$

(iv) $4\frac{3}{8} \div \frac{25}{18}$

Solution :

$4\frac{3}{8} \div \frac{25}{18} = \frac{35}{8} \div \frac{25}{18}$

$= \frac{35}{8} \times \frac{18}{25}$

$= \frac{35 \times 18}{8 \times 25}$

$= \frac{5 \times 7 \times 2 \times 9}{2 \times 4 \times 5 \times 5}$

$= \frac{63}{20}$

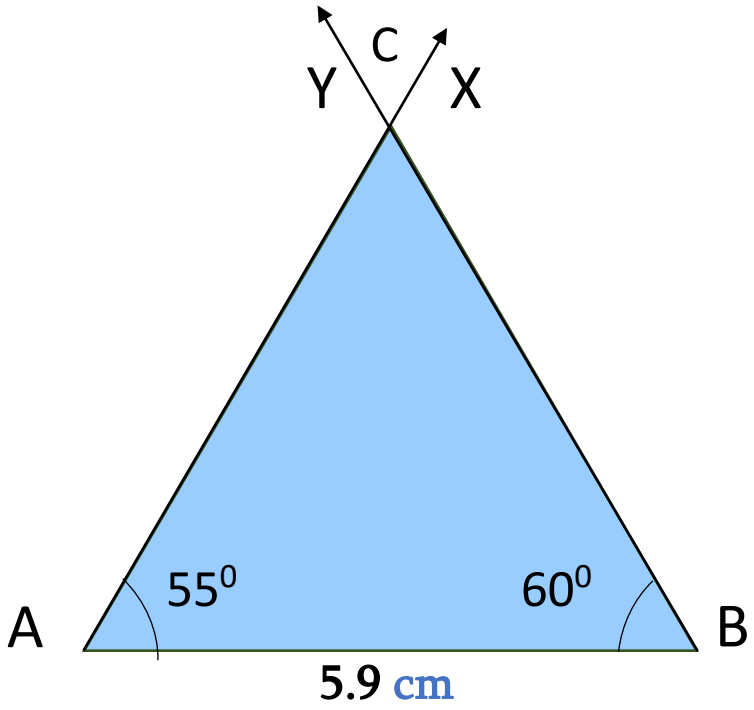
$\therefore 4\frac{3}{8} \div \frac{25}{18} = \frac{63}{20}$

8. Construct ΔABC such that $m\angle A = 55^0$, $m\angle B = 60^0$ and $l(AB) = 5.9$ cm.

Solution :

Given: In ΔABC,

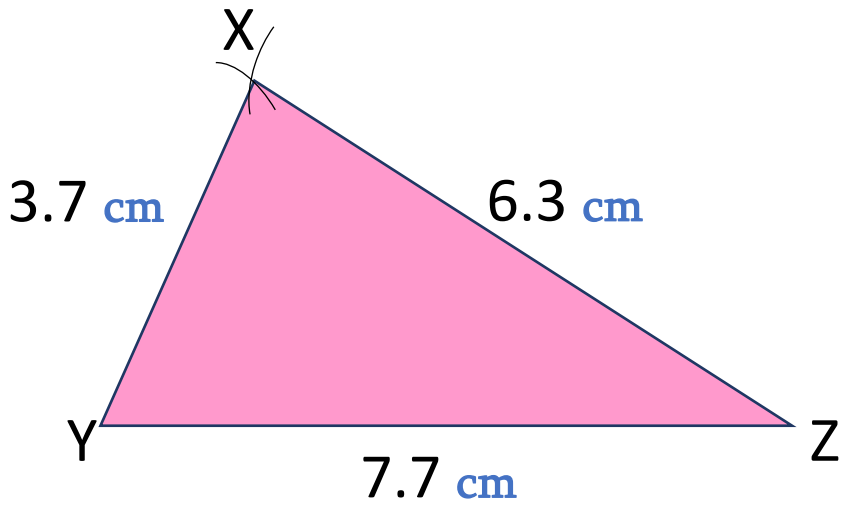
$m\angle A = 55^0$, $m\angle B = 60^0$ and $l(AB) = 5.9$ cm.



9. Construct ΔXYZ such that, l(XY) = 3.7 cm, l(YZ) = 7.7 cm, l(XZ) = 6.3 cm.

Solution :

Given : In ΔXYZ, l(XY) = 3.7 cm, l(YZ) = 7.7 cm, l(XZ) = 6.3 cm.



10. Construct ΔPQR such that, $m\angle P = 80^0$, $m\angle Q = 70^0$, $l(QR) = 5.7$ cm.

Solution :

Given : In ΔPQR $m\angle P = 80^0$, $m\angle Q = 70^0$, l (QR) = 5.7 cm.

$$m\angle P + m\angle Q + m\angle R = 180^0$$

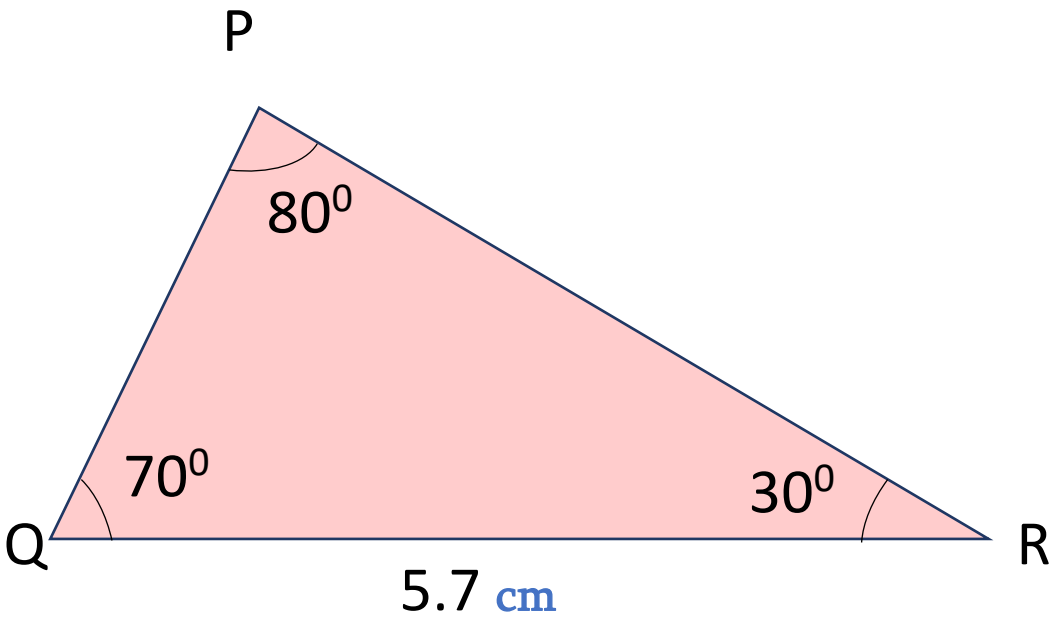
$$\therefore\ 80^0 + 70^0 + m\angle R = 180^0$$

$$\therefore m\angle R = 180^0 - 80^0 - 70^0$$

$$\therefore m\angle R = 180^0 - (80^0 + 70^0)$$

$$\therefore m\angle R = 180^0 - (150^0)$$

$$\therefore m\angle R = 30^0$$



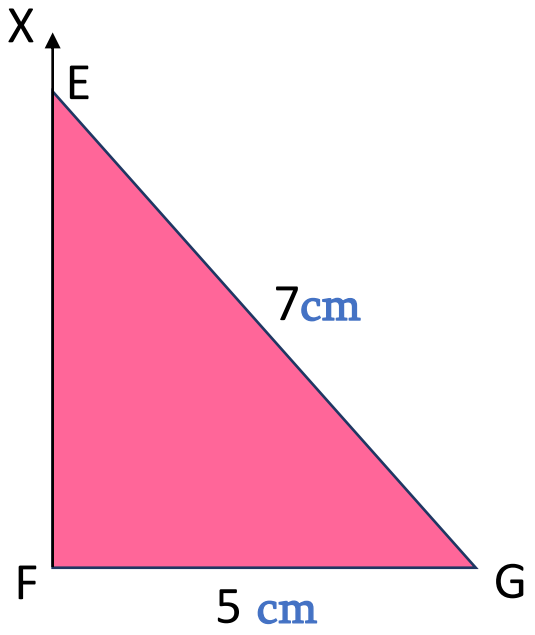
11. Construct ΔEFG from the given measures.

l(FG) = 5 cm, $m\angle$EFG = 90^0, l (EG) = 7 cm.

Solution :

Given : In ΔEFG l(FG) = 5 cm, $m\angle$EFG = 90^0,

l(EG) = 7 cm.



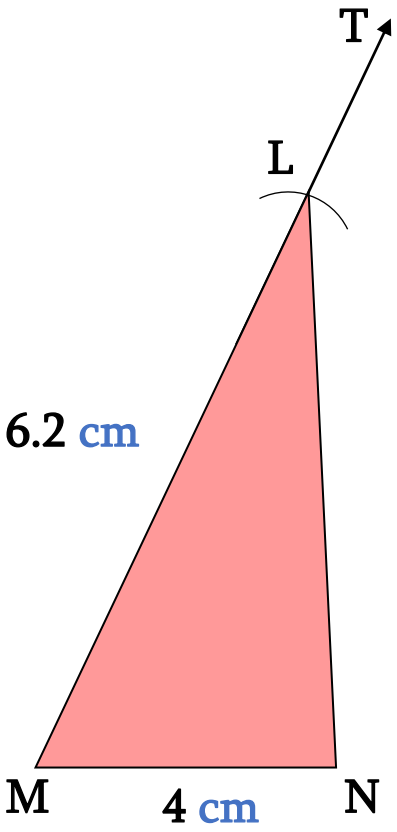
12. In ΔLMN, l(LM) = 6.2 cm, $m\angle$LMN = 60^0,

l(MN) = 4 cm. Construct ΔLMN.

Solution :

Given : In ΔLMN, l(LM) = 6.2 cm, $m\angle$LMN = 60^0,

l(MN) = 4 cm.



13. Find the measures of the complementary angles of the following angles.

(i) 35^0

Solution :

Suppose the complement of the given angle be x^0.

$\therefore\ 35 + x = 90$

$\therefore\ 35 + x - 35 = 90 - 35$

$\therefore\ x = 55$

$\therefore$ The complement of 35^0 is 55^0

(ii) a^0

Solution :

Suppose the complement of the given angle be x^0.

$\therefore\ a + x = 90$

$\therefore\ a + x - a = 90 - a$

$\therefore\ x = (90 - a)$

$\therefore$ The complement of a^0 is $(90 - a)^0$.

(iii) 22^0

Solution :

Suppose the complement of the given angle be x^0.

$\therefore\ 22 + x = 90$

$\therefore\ 22 + x - 22 = 90 - 22$

$\therefore\ x = 68$

$\therefore$ The complement of 22^0 is 68^0.

(iv) $(40 - x)^0$

Solution :

Suppose the complement of the given angle be a^0.

$\therefore (40 - x) + a = 90$

$\therefore (40 - x) + a - (40 - x) = 90 - (40 - x)$

$\therefore a = 90 - 40 + x$

$\therefore a = 50 + x$

$\therefore$ The complement of $(40 - x)^0$ is $(50 + x)^0$.

14. Find the measures of the supplements of the following angles.

(i) 111^0

Solution :

Suppose the supplement of the given angle be a^0.

$\therefore 111 + a = 180$

$\therefore a = 180 - 111 = 69$

$\therefore$ The supplement of 111^0 is 69^0.

(ii) 47^0

Solution :

Suppose the supplement of the given angle be a^0.

$\therefore\ 47 + a = 180$

$\therefore\ a = 180 - 47 = 133$

$\therefore$ The supplement of 47^0 is 133^0.

(iii) 180^0

Solution :

Suppose the supplement of the given angle be a^0.

$\therefore\ 180 + a = 180$

$\therefore\ a = 180 - 180 = 0$

$\therefore$ The supplement of 180^0 is 0^0

(iv) $(90 - x)^0$

Solution :

Suppose the supplement of the given angle be a^0.

$\therefore\ (90 - x) + a = 180$

$\therefore\ a = 180 - (90 - x)$

$= 180 - 90 + x$

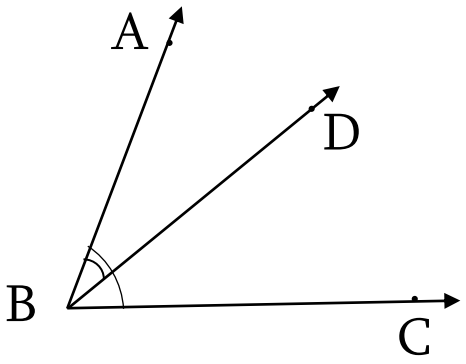
$= 90 + x$

$\therefore$ The supplement of $(90 - x)^0$ is $(90 + x)^0$

15. Construct the following figures.

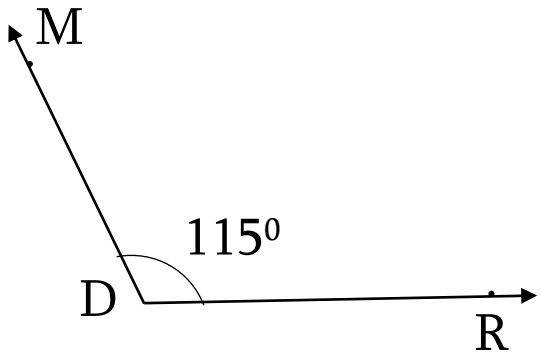
(i) A pair of adjacent angles

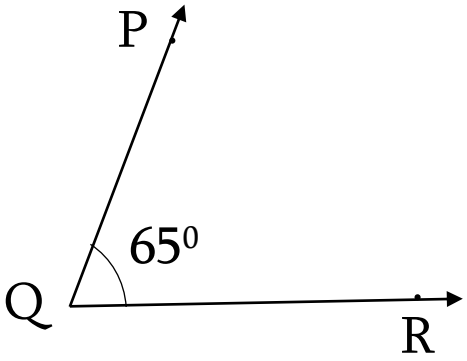
Ans.∠ ABC and ∠ DBC form a pair of adjacent angles.



(ii) Two supplementary angles which are not adjacent angles.

Ans.





$m\angle MDR = 115^0$ and $m\angle PQR = 65^0$

$m\angle PQR + m\angle MDR = 65^0 + 115^0 = 180^0$

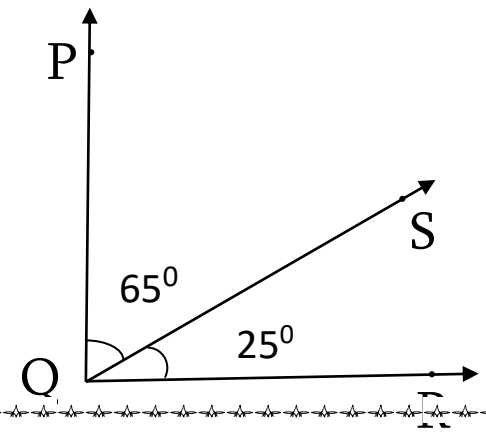
$\therefore m\angle MDR$ and $m\angle PQR$ are supplementary angles but not adjacent angles.

(iii) A pair of adjacent complementary angles.

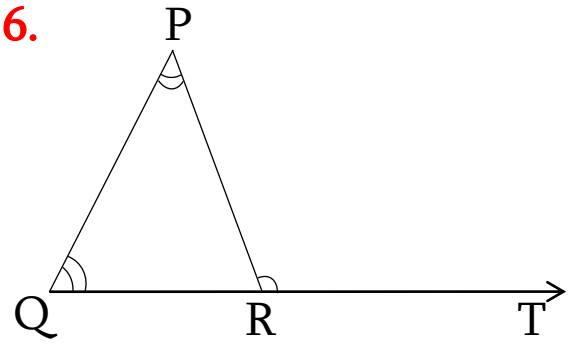
Ans.

$m\angle PQS = 65^0$ and $m\angle SQR = 25^0$

$m\angle PQS + m\angle SQR = 65^0 + 25^0 = 90^0$



$\therefore$ m$\angle$ PQS and m$\angle$ SQR is pair of adjacent angles which are complementary angles.

16. 

In ΔPQR, the measures of $\angle P$ and $\angle Q$ are equal and $m\angle PRQ = 70°$. Find the measures of the following angles.

(i) m$\angle$PRT (ii) m$\angle$P (iii) m$\angle$Q

Solution :

m$\angle$PRQ + m$\angle$PRT = 180^0 …(Angles forming a linear pair)

$\therefore$ 70^0 + m$\angle$PRT = 180^0

$\therefore$ m$\angle$PRT = 180^0 - 70^0

$\therefore$ m$\angle$PRT = 110^0

m$\angle$PRT = m$\angle$P + m$\angle$Q (By the exterior angle property)

$\therefore$ 2m$\angle$P = 110^0 …($\because$ m$\angle$P = m$\angle$Q)

$\therefore$ $m\angle P = \frac{110^0}{2}$

$\therefore$ m$\angle$P = 55^0

Also $m\angle Q = 55^0$

$\therefore$ (i) $m\angle PRT = 110^0$ (ii) $m\angle P = 55^0$ (iii) $m\angle Q = 55^0$

17. Simplify.

(i) $5^4 \times 5^3$

Solution :

$5^4 \times 5^3 = 5^{4+3}$ $\quad \ldots(a^m \times a^n = a^{m+n})$

$\therefore 5^4 \times 5^3 = 5^7$

(ii) $\left(\frac{2}{3}\right)^6 \div \left(\frac{2}{3}\right)^9$

Solution :

$\left(\frac{2}{3}\right)^6 \div \left(\frac{2}{3}\right)^9 = \left(\frac{2}{3}\right)^{9-6}$ $\quad \ldots(\frac{a^m}{a^n} = a^{m-n})$

$= \left(\frac{2}{3}\right)^{-3} = \left(\frac{3}{2}\right)^3$ $\quad \ldots [\left(\frac{a}{b}\right)^{-m} = \left(\frac{b}{a}\right)^m]$

$= \left(\frac{3}{2}\right)^3$

$\therefore \left(\frac{2}{3}\right)^6 \div \left(\frac{2}{3}\right)^9 = \left(\frac{3}{2}\right)^3$

(iii) $\left(\frac{7}{2}\right)^{8} \times \left(\frac{7}{2}\right)^{-6}$

Solution :

$\left(\frac{7}{2}\right)^{8} \times \left(\frac{7}{2}\right)^{-6} = \left(\frac{7}{2}\right)^{8+(-6)}$ $\quad \ldots(a^m \times a^n = a^{m+n})$

$= \left(\frac{7}{2}\right)^{2}$

$\therefore \left(\frac{7}{2}\right)^{8} \times \left(\frac{7}{2}\right)^{-6} = \left(\frac{7}{2}\right)^{2}$

(iv) $\left(\frac{4}{5}\right)^{2} \div \left(\frac{5}{4}\right)$

Solution :

$\left(\frac{4}{5}\right)^{2} \div \left(\frac{5}{4}\right) = \left(\frac{4}{5}\right)^{2} \times \left(\frac{4}{5}\right)^{1}$ $\quad \ldots(a^1 = a)$

$= \left(\frac{4}{5}\right)^{2+1}$ $\quad \ldots(a^m \times a^n = a^{m+n})$

$= \left(\frac{4}{5}\right)^{3}$

$\therefore \left(\frac{4}{5}\right)^{2} \div \left(\frac{5}{4}\right) = \left(\frac{4}{5}\right)^{3}$

18. Find the value.

(i) $17^{16} \div 17^{16}$

Solution :

$17^{16} \div 17^{16}$

$= 17^{16 - 16}$ … $(a^m \div a^n = a^{m-n})$

$= 17^0$

$= 1$ … $(a^0 = 1)$

$\therefore 17^{16} \div 17^{16} = 1$

(ii) 10^{-3}

Solution :

10^{-3}

$= \frac{1}{10^3}$ … $(a^{-m} = \frac{1}{a^m})$

$= \frac{1}{10 \times 10 \times 10}$

$= \frac{1}{1000}$

$\therefore 10^{-3} = \frac{1}{1000}$

(iii) $(2^3)^2$

Solution :

$(2^3)^2$

$= 2^{3 \times 2}$ … $[(a^m)^n = a^{mn}]$

$= 2^6$

$= 2 \times 2 \times 2 \times 2 \times 2 \times 2$

$= 64$

$\therefore (2^3)^2 = 64$

(iv) $4^6 \times 4^{-4}$

Solution :

$4^6 \times 4^{-4}$

$= 4^{6+(-4)}$ … $(a^m \times a^n = a^{m+n})$

$= 4^2$

$= 4 \times 4$

$= 16$

$\therefore 4^6 \times 4^{-4} = 16$

19. Solve.

(i) $(6a - 5b - 8c) + (15b + 2a - 5c)$

Solution : Horizontal arrangement :

$6a - 5b - 8c + 15b + 2a - 5c$

$= (6a + 2a) + (-5b + 15b) + (-8c - 5c)$

$= 8a + 10b - 13c$

Vertical arrangement :

$$\begin{array}{r} 6a - 5b - 8c \\ +\ \underline{2a + 15b - 5c} \\ 8a + 10b - 13c \end{array}$$

$\therefore 6a - 5b - 8c + 15b + 2a - 5c = 8a + 10b - 13c$

(ii) $(3x + 2y)(7x - 8y)$

Solution :

$(3x + 2y)(7x - 8y)$

$= 3x(7x - 8y) + 2y(7x - 8y)$

$= 21x^2 - 24xy + 14xy - 16y^2$

$= 21x^2 - 10xy - 16y^2$

$\therefore (3x + 2y)(7x - 8y) = 21x^2 - 10xy - 16y^2$

(iii) (7m–5n) - (- 4n – 11m)

Solution :

(7m – 5n) - (-4n – 11m)

= 7m – 5n + 4n + 11m

= 7m + 11m - 5n + 4n

= 18m - n

∴ (7m – 5n) – (–4n – 11m) = 18m – n

(iv) (11m –12n + 3p) - (9m + 7n – 8p)

Solution :

(11m – 12n + 3p) - (9m + 7n – 8p)

= 11m – 12n + 3p - 9m - 7n + 8p

= 11m – 9m – 12n - 7n + 3p + 8p

= 2m -19n +11p

∴ (11m – 12n + 3p) - (9m + 7n – 8p) = 2m -19n + 11p

20. Solve the following equations.

(i) $4(x + 12) = 8$

Solution :

$\because \ 4(x + 12) = 8$

$\therefore 4x + 48 = 8$

$\therefore 4x + 48 - 48 = 8 - 48$

$\therefore 4x = -40$

$\therefore \ x = -10$

$\therefore$ The value of x is -10.

(ii) $3y + 4 = 5y - 6$

Solution :

$\because \ 3y + 4 = 5y - 6$

$\therefore 4 + 6 = 5y - 3y$

$\therefore 10 = 2y$

$\therefore \ y = 5$

$\therefore$ The value of y is 5.

Multiple choice Questions

Choose the right answer from the options given after every question.

1. The three angle bisectors of a triangle are concurrent. Their point of concurrence is called the ……..

(i) circumcentre (ii) apex

(iii) incentre (iv) point of intersection.

Ans.: (iii) incentre

2. $\left[\left(\frac{3}{7}\right)^{-3}\right]^{4}$ =……

(i) $\left(\frac{3}{7}\right)^{-7}$ (ii) $\left(\frac{3}{7}\right)^{-10}$

(iii) $\left(\frac{7}{3}\right)^{12}$ (iv) $\left(\frac{3}{7}\right)^{20}$

Ans.: (iii) $\left(\frac{7}{3}\right)^{12}$

3. The simplest form of $5 \div \left(\frac{3}{7}\right) - \frac{1}{3}$ is ……..

(i) 3 (ii) 5 (iii) 0 (iv) $\frac{1}{3}$

Ans.: (i) 3

4.The solution of the equation $3x - \frac{1}{2} = \frac{5}{2} + x$ is …….

(i) $\frac{5}{3}$ (ii) $\frac{7}{2}$ (iii) 4 (iv) $\frac{3}{2}$

Ans.: (iv) $\frac{3}{2}$

5. Which of the following expressions has the value 37?

(i) $10 \times 3 + (5 + 2)$ (ii) $10 \times 4 + (5 - 3)$

(iii) $8 \times 4 + 3$ (iv) $(9 \times 3) + 2$

Ans.: (i) $10 \times 3 + (5 + 2)$

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