PSBB Learning Leadership Academy Date: / /
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Class 8 Revision Solution.

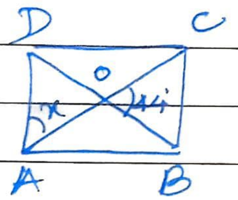
① ⓐ 48 ② ⓐ $10(y-8)+y$ ③ ⓒ both (i) & (iii)

④ ⓒ both (i) & (ii) ⑤ $x = 360° - (87° + 94° + 122°)$
$x = 57°$ ⓒ

⑥ ⓒ $2n-4$ ⑦ ⓒ $\frac{n(n-3)}{2}$

⑧ ⓒ $\frac{4x+8}{5x+8} = \frac{5}{6}$ ⑨ ⓑ Rhombus

⑩

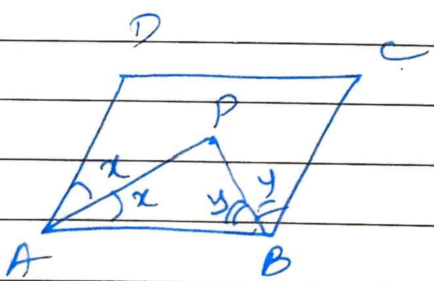


$\because$ △ AOD is isosceles

$x + x + 44° = 180°$

$x = 68°$

⑪



Given AP & BP are bisectors of ∠A & ∠B

$\therefore \angle BAP = \frac{1}{2}\angle BAD$

$\angle PBA = \frac{1}{2}\angle ABC.$

$\because \angle 2x + \angle 2y = 180°$ (Ajacent angles are supplementary)

$\therefore \angle x + \angle y = 90°$ — (1)

From △ APB ⇒ $\angle APB + \angle PAB + \angle PBA = 180°$

$\angle APB + \angle x + \angle y = 180°$ [Substituting (1)]

$\angle APB = 90°$

12 a Rhombus is a parallelogram
- Opposite sides are parallel & equal
- Adjacent angles are supplementary

b Square is a special Rhombus

- All angles are 90°

13 Let the interior angle $= x$.

Exterior angle $= \frac{1}{3}x$. — (1)

no. of sides x each exterior angle $= 360^\circ$

Each exterior angle $= \frac{360^\circ}{n}$

Each interior angle $= \frac{2n-4 \times 90^\circ}{n}$

Given B (1) $\Rightarrow \frac{360}{n} = \frac{1}{3}\left(\frac{2n-4}{n} \times 90\right)$

Simplify $n = 8$

14 Sum of the interior angles of a pentagon $= 540^\circ$

$x + 2x + 140^\circ + 33^\circ + x + 75^\circ = 540^\circ$
Simplify
$x = 73^\circ$.

(15) $\frac{3a-2}{3} + \frac{2a+3}{2} = a + \frac{7}{6}$

$\frac{6a-4+6a+9}{\cancel{6}} = \frac{6a+7}{\cancel{6}}$

$12a+5 = 6a+7$

Simplify $\boxed{\therefore a = \frac{1}{2}}$

(16) Let the no of Rs 10 note $= x$

$\therefore$ no of Rs 20 note $= 50 - x$.

$10 \times x + 20(50-x) = 800$

$10x + 1000 - 20x = 800$

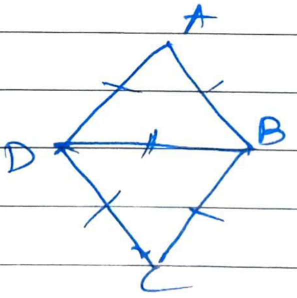
$-10x = -200$

$\boxed{x = 20}$

$\therefore$ There are 20 notes of Rs 10 & 30 notes of Rs 20

(18) Given $AB = BD$

Consider $\triangle ABD$ & $\triangle BCD$ they are equilateral $\triangle$



$\therefore \angle ABD + \angle CBD = 120^0$

$\therefore \angle CDA = 120^0$

$\angle BAD = 60^0 = \angle BCD$