C

$9x$

D $3x$

$7x$ B

$5x$

A

find the each $\angle$

$\angle A + \angle B + \angle C + \angle D = 360°$

$5x + 7x + 9x + 3x = 360$

$24x = 360°$

$x = \dfrac{360°}{24}$ 15°

$x = 15°$

$\angle C = 9x$

$= 9 \times 15°$

$\approx 135°$

$\angle D = 3x$

$= 3 \times 15$

$= 115°$ 45°

$\angle A = 5x$

$= 5 \times 15$
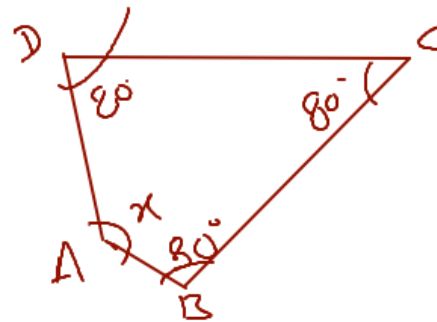
$= 75°$

$\angle B = 7x$

$= 7 \times 15°$

$= 105°$

Q.1: A quadrilateral has three acute angles, each measure 80°. What is the measure of the fourth angle?

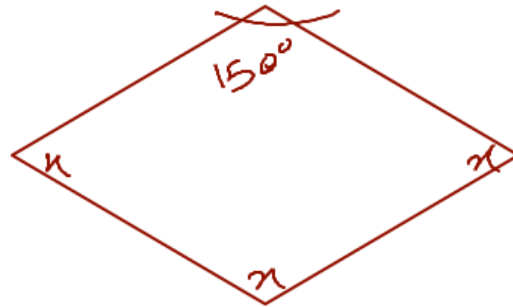$$80 + 80 + 80 + x = 360$$
$$240 + x = 360$$
$$x = 360 - 240$$
$$x = 80°$$

Q.4: The angles of a quadrilateral are in the ratio of 1 : 2 : 3 : 4. What is the measure of the four angles?
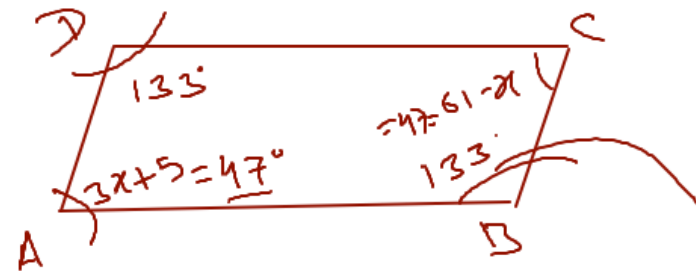
$x \quad 2x \quad 3x \quad 4x$

$36 \quad 2 \times 6$

$3 \times 36 \quad 4 \times 36°$

Q.3: In a quadrilateral ABCD, ∠D is equal to 150° and ∠A = ∠B = ∠C. $= x$
Find ∠A, ∠B and ∠C.

$150°$

x x

x

Q. 7: The opposite angles of a parallelogram are (3x + 5)° and (61 – x)°. Find the measure
of four angles.

$3x+5$

$\overline{3\times14+5}$

$42+5$

$47°$

D

$133°$

$3x+5=47°$

$=47=61-x$

$133°$

A

C

B

61
-14
$\overline{}$
47

Q. 9: Find the measure of all four angles of a parallelogram whose consecutive angles are in the ratio 1 : 3.

$x : 3x$

$45°$

$\dfrac{360}{8}$

$3x = 135$

$x = 45$

135 $3x$

$45x$
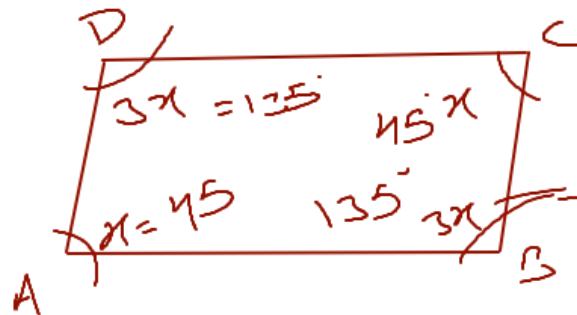
3×45

What is the measure of each exterior angle of a regular polygon of 15 sides?

$24°$