# Problems on Ages-I

Q1. (Raman's age after 15 years will be 5 times his age 5 years back) what is his present age.

(1) 5 years (2) 10 years (3) 15 years (4) 20 years.

Raman present = (R) ✓

after 15 years: (R+15)

✓(R+15) = 5(R-5)

5 year back/bf/ago: (R-5) ✓

⇒ R+15 = 5R-25

⇒ 15+25 = 5R-R

10 = 4R

R = 10

x✓, y✓, ?

**Concept**

5 year ago/5 year b/f = 20-5 = 15 ✓

Present age: 20 ✓

5 year hence/5 year after

= 20+5 = 25

5 year ago/bf: (x-5) ✓

Present: x ✓

5 year hence/after

= (x+5)

Q2. Rahul was 4 times old as his son 8 years back and he will be 2 times old as his son after 8 years. Calculate Rahul and his son's age.

R=40
S=16

Rahul present: R = 40

8 year back: (R-8)

son present: S → 16

8 year back: (S-8)

$(R-8) = 4(S-8)$

$R-8 = 4S-32$

$R-4S = -32+8 = -24$

$\boxed{R-4S=-24}$ -(1)

after 8 years.

Rahul: (R+8)

son: (S+8)

$(R+8) = 2(S+8)$

$R+8 = 2S+16$

$R-2S = 16-8 = 8$

$R-2S = 8$ -(2) × 2

$2R-4S = 16$

$R-4S = -24$

$R = 40$

$R-2S = 8$

$40-2S = 8$

$2S = 32$ 16

$\boxed{S=16}$