DAY 39

MCA CET 2025

REASONING

ARITHMETICAL PROBLEMS

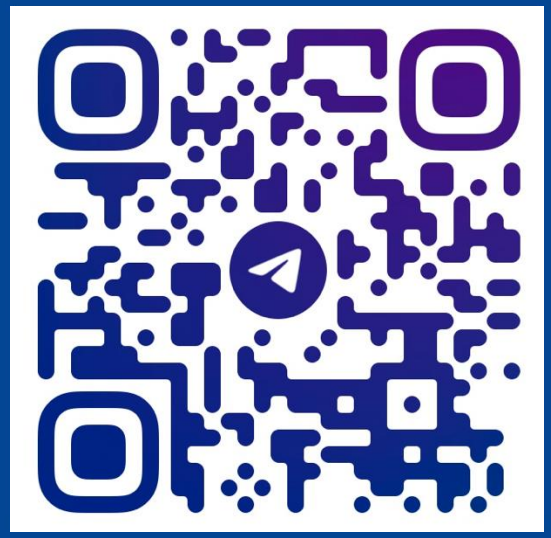
KEEP LEARNING
MCA
VISION ACADEMY
YOUR CAREER GUIDE

INEXORABLE
MAH MCA CET 2025
FREE CRASH COURSE

KEEP LEARNING
MCA VISION ACADEMY
YOUR CAREER GUIDE

JOIN US ON WHATSAPP

JOIN US ON TELEGRAM



FOR MAH MCA CET 2025

Arithmetical Problems

This topic addresses general arithmetic problems, requiring common sense along with a touch of logical reasoning for their solutions.

Requirements:

1. Understanding of linear equations and their solutions
2. Basics of Number System
3. Basic Maths

A mother told her son, "When you were born my age was the same as your present age". If 5 yr ago, the age of son is 16 yr, then find out the present age of the mother.

(a) 42 yr (b) 32 yr (c) 38 yr (d) 37 yr

Born

Mother = $x + x$

$= 2x$

$= 2 \times 21$

$= 42$ yrs

Son's present age = x

$x - 5 = 16$

$x = 16 + 5$

$x = 21$

Mani is double the age of Prabhu. Ramona is half the age of Prabhu. If the age of Mani is 60 yr, find out the age of Ramona.

(a) 20 yr

(b) 15 yr

(c) 10 yr

(d) 24 yr

Mani = $2x$ = 60 yrs

Ramona = $\frac{x}{2}$

$= \frac{30}{2}$ = 15 yrs

$2x = 60$

$x = \frac{60}{2}$

$x = 30$

Govind = 48 yrs.

Govind is 48 yr old. He is twice as old as his son Prem is now. How old was Prem seven years before?

Prem → x

(a) 16 yr

(b) 17 yr

(c) 13 yr

(d) 18 yr

$48 = 2x$

$\frac{48}{2} = x \Rightarrow x = 24$

$x - 7 = 24 - 7$

$= 17$

y x

The sum of Reena's and her father's age is 60 yr and the difference between their age is 36 yr.

What is Reena's father's age?

(a) 58 yr (b) 60 yr (c) 48 yr (d) 52 yr

$$x + y = 60$$
$$+\ x - y = 36$$
$$2x = 96$$
$$x = \frac{96}{2}$$
$$\boxed{x = 48}$$

20 yr ago, Antony's age was 1/2 of what his age now is. What is his age now?

(a) 20 yr

(b) 40 yr

(c) 35 yr

(d) 30 yr

present x

$$x - 20 = \frac{x}{2}$$

$$2(x-20) = x$$

$$2x - 40 = x$$

$$2x - x = 40$$

$$\boxed{x = 40}$$

Mr. Mani's age is 47 yr and John's age is 13 yr. In how many years will Mr. Mani's age be double of John' age?

(a) 20 yr

(b) 21 yr

(c) 10 yr

(d) 15 yr

present → Mani John

68 ← 47 13 ⇒ 34

$47+x = 2(13+x)$

$47+x = 26+2x$

$47-26 = 2x-x$

$21 = x$

The ratio of two numbers is 3:5 and their LCM is 300. Then, one of the numbers will be

(a) 30

(b) 50

(c) 60

(d) 75

$\frac{x}{y} = \frac{3}{5}$ (m)

Product of 2 nos = LCM × HCF

first = 3m = 60

2nd = 5m = 100

$x \times y \times [HCF^2] = LCM \times HCF$

lowest ratio product of 2 number = LCM × HCF

$3 \times 5 \times m = 300$

$15 \times m = 300$

$m = 300/15 = 20$

60% of students in a school are boys. The number of girls in the school is 300, then the number of boys is

(a) 500

(b) 300

(c) 450

(d) 750

Girls = 40%

Students = x

$\frac{40}{100} \times x = 300$

$x = \frac{300 \times 10}{4}$

$x = 750$

$750 - 300$

450

Three friends A, B and C have different amounts of rupees with them. If B takes Rs.7 from A, then B will have equal amount as C has. B and C together have total Rs.157. How many rupees does C have?

(a) 80
(b) 81
(c) 83
(d) 82

A	B	C
x	y	z
$x-7$	$y+7$	z

$y+7 = z$

$y - 7 = -7$
$+\quad y + z = 157$

$2y = 150$

$y = 75$

$z = 75 + 7$
$= 82$

If the speed of a train is 92.4 km/h, then how many metres are covered by it in 20 min?

(a) 30800 m (b) 32800 m (c) 38200 m (d) 38000 m

$t = 20 \times 60$

km/h ⟶ m/s

$d = s \times t$

$$s = 92.4 \times \frac{5}{18} \text{ m/s}$$

$$d = \frac{924}{10} \times \frac{5}{18} \times 20 \times 60 = 308 \times 5 \times 20$$

$$= 308 \times 100$$

$$= 30800 \text{ m}$$

$x, \quad x+1$

The difference between the squares of two consecutive numbers is 47. The numbers are

(a) 24, 25

(b) 23, 24

(c) 22, 23

(d) 21, 22

3, 4

5, 6

19, 20

$(x+1)^2 - x^2 = 47$

$x^2 + 2x + 1 - x^2 = 47$

$2x = 47 - 1$

$2x = 46$

$x = 23$

$x + 1 = 24$

'x' 'y'

While travelling by bus, a man spent Rs.60 more than 10 times the fare he paid for an auto rickshaw. The total amount spent by him is 13 times the fare he paid for an auto rickshaw.

bus = x auto = y

What total amount of money was spent on bus as well as auto rickshaw by the man?

(a) Rs.60

(b) Rs.30

(c) Rs.390

(d) Rs.570

$x = 10y + 60$

$x + y = 13y$ $= 13 \times 30$ $= 390$

$x = 12y$

$12y = 10y + 60$

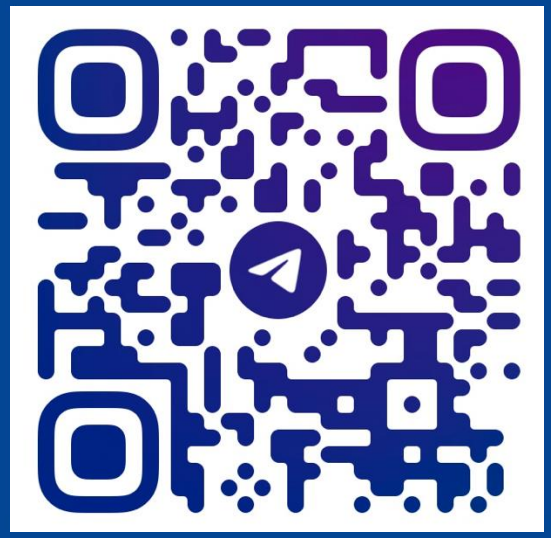
$2y = 60$

$y = 30$

KEEP LEARNING
MCA VISION ACADEMY
YOUR CAREER GUIDE

JOIN US ON WHATSAPP

JOIN US ON TELEGRAM



FOR MAH MCA CET 2025