Preparation for CSIR NET | IIT JAM | GATE

General Aptitude: Numerical Ability

Which of the following 7-digit numbers cannot be perfect squares.

A. $45xyz26$

B. $2xyz175$

C. $xyz3310$

(a) Only A

(b) Only B

(c) Only C

(d) All three.

Last digits of perfect square are:

0, 1, 4, 5, 6, 9. Only.

Other tricks used.

Odd 6

even 5

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If NET 14 and NET 15 are 5-digit numbers such that their sum 157229 and then N + E + T = ?

(A) 15

(B) 21 ✓

(C) 25

(D) 72

NET 14
NET 15
157229

2NET = 1572

NET = 786

N + E + T = 21

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N, E, T are distinct +ve integers s.t. If $N \times E \times T = 2013$ which of the following is Max possible sum of N, E, T

(a) 39

(b) 671

(c) 2015

(d) 675

$N \times E \times T = 2013$

$= 671 \times 3$

$= 671 \times 3 \times 1$

$N \quad E \quad T$

$N + E + T = 675$

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$P + \frac{1}{Q} = 1$ and $Q + \frac{1}{R} = 1$

What is $PQR = ?$

(a) -1 ✓

(b) 2

(c) -2

(d) Can not be Calculated

$P + \frac{1}{Q} = 1$

$PQ + 1 = Q$

$PQR + R = QR$

$Q + \frac{1}{R} = 1$

$QR + R = 1$

$QR = 1 - R.$

$PQR + R = 1 - R.$

$PQR = -1$

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$A \times B = 24$ $B \times C = 32$ $C \times D = 48$

find $A \times D$

(a) Can not be found.

(b) is a perfect square

(c) is a perfect Cube

(d) is odd

$$\frac{A \times B \times C \times D}{B \times C}$$

$$\frac{24 \times 48}{32} = 36$$

6×6

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Which of the following is perfect square.

(a) 2042122 ✗

(b) 1022121 ✓

(c) 4083128 ✗

(d) 3063126 ✗

last digit of perfect square are 0, 1, 4, 5, 6, 9

No. before 6 is always odd.

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A, B, C are three distinct digits If they are added as Below.

$$\begin{array}{r} A\ \ B\ \ C \\ +\ A\ \ B\ \ C \\ +\ A\ \ B\ \ C \\ \hline C\ \ C\ \ C \end{array}$$

Find value of A, B, C.

(a) ~~X~~ $A=3$ $B=4$ $C=5$

(b) ~~X~~ $A=5$ $B=1$ $C=3$

(c) ~~X~~ $A=2$ $B=3$ $C=1$

(d) ✓ $A=1$ $B=8$ $C=5$.

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