29/05/24

cube root :- perfect NO.

		unit digit		
$(1)^3 = 1$		$(1)^3 =$ 1		$1 \leftrightarrow 1$
$(2)^3 = 2\times2\times2 = 8$		$(2)^3 =$ 8		$2 \leftrightarrow 8$ ★
$(3)^3 = 27$		$(3)^3 =$ 7		$3 \leftrightarrow 7$ ★★
$(4)^3 = 64$		$(4)^3 =$ 64		$4 \leftrightarrow 4$
$(5)^3 = 125$		$(5)^3 =$ 5		$5 \leftrightarrow 5$
$(6)^3 = 216$		$(6)^3 =$ 6		$6 \leftrightarrow 6$
$(7)^3 = 343$		$(7)^3 =$ 3		$7 \leftrightarrow 3$ ★★
$(8)^3 = 512$		$(8)^3 =$ 2		$8 \leftrightarrow 2$ ★
$(9)^3 = 729$		$(9)^3 =$ 9		$9 \leftrightarrow 9$

★ ★ $2 \leftrightarrow 8$, $3 \leftrightarrow 7$ ‖ { $1\leftrightarrow1$ $5\leftrightarrow5$ $9\leftrightarrow9$; $4\leftrightarrow4$ $6\leftrightarrow6$ } ★

Step 1°: See unit digit
Step 2°: Remove last 3 digits.

1.) $\sqrt[3]{681472}$ = Ans 88

unit digit = $2 \leftrightarrow 8$

Find the number whose cube is maximum but less than 681.

$(1)^3 = 1 < 681$
$(2)^3 = 8 < 681$
$(3)^3 = 27 < 681$
$(4)^3 = 64 < 681$
$(5)^3 = 125 < 681$
$(6)^3 = 216 < 681$
$(7)^3 = 343 < 681$
$(8)^2 = 512 < 681$
$(9)^3 = 729 > 681$
$(10)^3 = 1000$
$(11)^3 = 1331$

2) $\sqrt[3]{238328}$ = 62

8 ↔ 2

$(5)^3 = 125$

$(6)^2 = 216$

$(7)^3 = 343 > 238$

3) $\sqrt[3]{753571}$ = 91

1 ↔ 1

$(9)^3 = 729 < 753$

$(10)^3 = 1000 > 753$

4) $\sqrt[3]{1259712}$ = 108

2 ↔ 8

$(10)^3 = 1000 < 1259$

$(11)^3 = 1331 > 1259$

121
+11
132
121
1331

9 | 121 | 9
1331

5) $\sqrt[3]{205379}$ = 59

9 ↔ 9

$(5)^2 = 125 < 205$

$(6)^3 = 216 > 205$