

Exercício 4(A)

i) $7^3 = 7^3 = 7 \times 7 \times 7 = 343$

ii) $11^3 = 11 \times 11 \times 11 = 1331$

iii) $16^3 = 16 \times 16 \times 16 = 4096$

iv) $23^3 = 23 \times 23 \times 23 = 12,167$

v) $31^3 = 31 \times 31 \times 31 = 29,791$

2) i) 24000

$$2 \overline{) 24000}$$

$$2 \overline{) 12000}$$

$$2 \overline{) 6000}$$

$$3 \overline{) 3000}$$

$$5 \overline{) 1000}$$

$$5 \overline{) 200}$$

$$5 \overline{) 40}$$

$$2 \overline{) 8}$$

$$2 \overline{) 4}$$

$$2 \overline{) 2}$$

$$(2 \times 2 \times 2) (3) (5 \times 5 \times 5)$$

$$(2 \times 2 \times 2)$$

$$2^3 \times (3) \times 5^3 \times 2^3$$

Not a Perfect

39.

5) 1728

$$\begin{array}{r}
 2 \overline{) 1728} \\
 \underline{2 \overline{) 864}} \\
 \underline{2 \overline{) 432}} \\
 \underline{2 \overline{) 216}} \\
 \underline{2 \overline{) 108}} \\
 \underline{2 \overline{) 54}} \\
 \underline{3 \overline{) 27}} \\
 \underline{3 \overline{) 9}} \\
 \underline{3 \overline{) 3}} \\
 1
 \end{array}$$

$$= 2 \times 2 \times 2$$

$$= 2 \times 2 \times 2$$

$$= 3 \times 3 \times 3$$

$$2^3 \times 2^3 \times 3^3$$

(Perfect sq.)

6) 1938

$$\begin{array}{r}
 2 \overline{) 1938} \\
 \underline{3 \overline{) 969}} \\
 \underline{3 \overline{) 323}} \\
 \downarrow
 \end{array}$$

7) $2.1 = 2.1 \times 2.1 \times 2.1$
 $= 9.261$

8) $0.4 = 0.4 \times 0.4 \times 0.4$
 $= 0.064$

9) $1.6 = 1.6 \times 1.6 \times 1.6$
 $= 4.096$

$$\text{ii) } 25 = 25 \times 25 \times 25 \\ = 15625$$

$$\text{iii) } 0.12 = 0.12 \times 0.12 \times 0.12 \\ = 0.001728$$

$$\text{iv) } 0.02 = 0.02 \times 0.02 \times 0.02 \\ = 0.000008$$

$$\text{v) } 1323 = 3^3 \times 7^2$$

1323 must be multiplied with

$$\begin{array}{r} 3 \overline{) 1323} \\ \underline{3} \\ 441 \\ \underline{3} \\ 147 \\ \underline{3} \\ 49 \\ \underline{7} \\ 7 \\ \underline{7} \\ 1 \end{array}$$