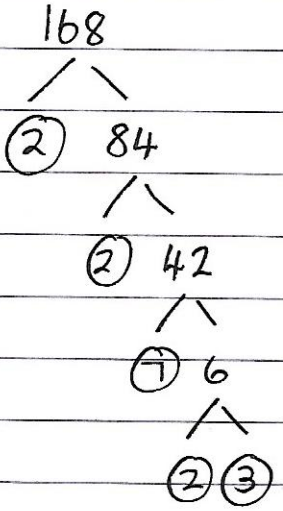
Answers

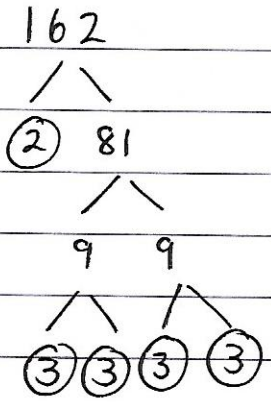
1)



$168 = 2 \times 2 \times 2 \times 3 \times 7$

$= 2^3 \times 3 \times 7$

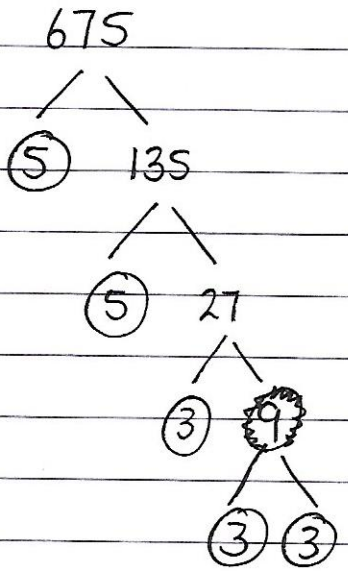
2)



$162 = 2 \times 3 \times 3 \times 3 \times 3$

$= 2 \times 3^4$

3)



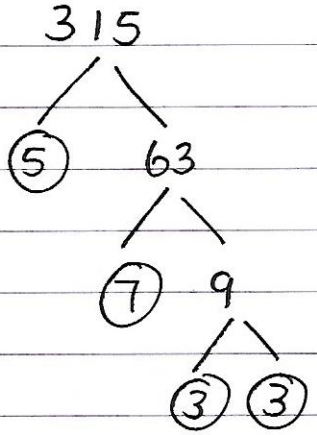
$$5 \overline{)\, 675} \quad 135$$

$$5 \overline{)\, 135} \quad 27$$

$675 = 3 \times 3 \times 3 \times 5 \times 5$

$= 3^3 \times 5^2$

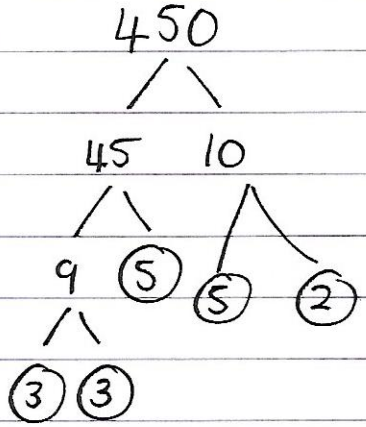
4)



$$5 \overline{)315} \quad 63$$

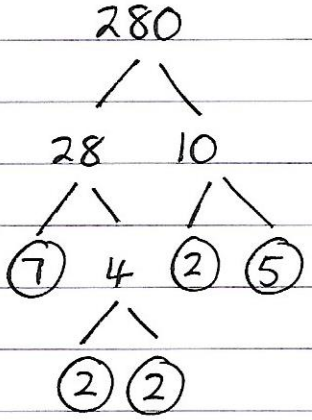
$$315 = 3 \times 3 \times 5 \times 7$$
$$= 3^2 \times 5 \times 7$$

5)



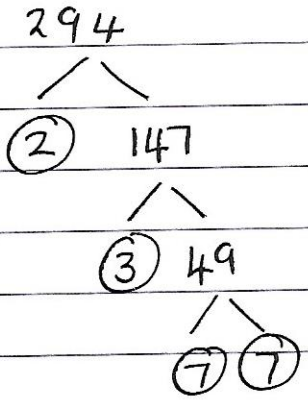
$$450 = 2 \times 3 \times 3 \times 5 \times 5$$
$$= 2 \times 3^2 \times 5^2$$

6)



$$280 = 2 \times 2 \times 2 \times 5 \times 7$$
$$= 2^3 \times 5 \times 7$$

7)



$$\begin{array}{r} 147 \\ 2\overline{)294} \end{array}$$

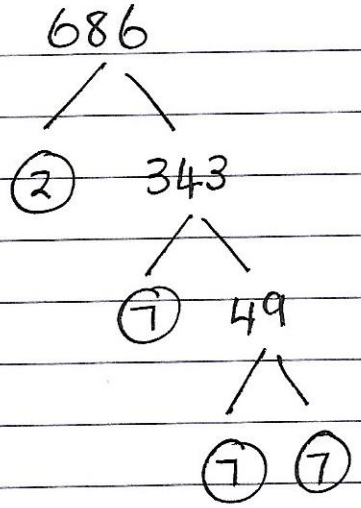
TRY ÷147 by 3

$$\begin{array}{r} 49 \\ 3\overline{)147} \end{array}$$

$\therefore 294 = 2 \times 3 \times 7 \times 7$

$= 2 \times 3 \times 7^2$

8)



Try ÷343 by 3

$$\begin{array}{r} 114 \text{ r } 1 \\ 3\overline{)343} \end{array}$$

✗ NO!

Try ÷343 by 7

$$\begin{array}{r} 49 \\ 7\overline{)343} \end{array}$$

✓ YES.

$\therefore 686 = 2 \times 7 \times 7 \times 7$

$= 2 \times 7^3$