

Q6: (a).

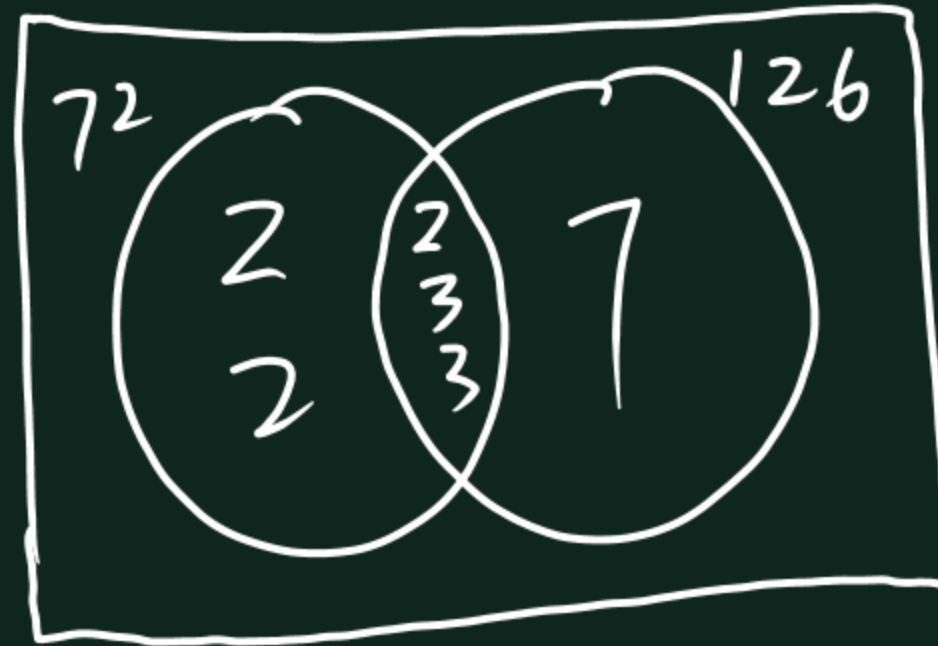


$$2 \times 3 \times 3 \times 7$$

(b). HCF/LCM

$$72 = (2 \times 2 \times 2 \times 3 \times 3)$$

$$126 = (2 \times 3 \times 3 \times 7)$$



$$\text{HCF} = 2 \times 3 \times 3 = 18$$

$$\text{LCM} = 2 \times 2 \times 18 \times 7 = 504$$

Q7:

$$35 = 1 \times 35 = (5 \times 7)$$

$$b = 5 \quad b$$

$$c = 7 \quad 7$$
$$c = 5 \quad 5$$

$$c = 7$$

$$b = 5$$

$$\frac{a}{5} + \frac{5}{7} = \frac{7a + 25}{35} < 1$$

Q7: LCD (最小公分母).

e.g:  $\frac{1}{2} + \frac{2}{3} = \frac{\dots}{2 \times 3} \rightarrow 6$

How to find LCD ?  $\rightarrow$  fraction

$\frac{21}{36} = \frac{7}{12}$ ,  $\frac{5}{18} = \frac{10}{36}$  LCM  $\rightarrow$  Integer



$LCD = (LCM) = 36$

$\frac{a}{b} \cdot \frac{b}{c}$

1°  $a < b, b < c$

2°  $b \cdot c = 35 = 5 \times 7$   
 $b = 5, c = 7$   
 $\frac{a}{b} + \frac{b}{c} = \frac{ac+b^2}{35}$

$= \frac{7a+25}{35}$  3°  $7a+25 < 35$

$a < \frac{10}{7} \approx 1.42$

$a = 1$

$\therefore \frac{32}{35}$

Q8:  $1^{\circ} 2^1 = 2: 1, 2 \ (n=2)$   
 $2^2 = 4: 1, 2, 4 \ (n=3)$   
 $2^3 = 8: 1, 2, 4, 8 \ (n=4)$   
 $\vdots$   
 $2^{20} = ? \dots n=21$

$2^{\circ} m: 1, \dots, m$   
 $1$  - prime factorization  
 $2 - (+1)$  then (~~X~~)

$24 = \underbrace{2 \times 2 \times 2}_{\text{"2"}} \times \underbrace{3}_{\text{"3"}}$

Factor tree for 24:

```

      24
     /  \
    2    12
       /  \
      2    6
         /  \
        2    3
  
```

Factor tree for 8:

```

      8
     //
    (3+1) X (1+1)
  
```

Q12 :

$$\begin{array}{c} | \quad | \quad | \quad | \\ 4 \quad 4.25 \quad 4.5 \quad 5 \end{array}$$

$$\pm \frac{\text{degree of accuracy}}{2}$$

$$\frac{0.5}{2} = 0.25$$

LB

$$4.25 \leq r < 4.75$$

UB

$$4.749$$

$$\pi r(r+l) = 152\pi$$

$$r(r+l) = 152$$

$$\underbrace{l}_{\text{LB}} = \frac{152}{\underbrace{r}_{\text{UB}}} - \underbrace{r}_{\text{UB}} = 27.25$$

Q13:



each B:  $11.5 \leq B < 12.5$  (g)

$$\frac{1}{2} = 0.5$$

Total mass:  $949.5 \leq TM < 950.5$  (g)

$$\text{total mass} = \text{tin} + 70B$$

$$\frac{\text{tin}}{\text{UB}} = \frac{TM}{\text{UB}} - 70 \times \frac{B}{\text{LB}}$$

(UB)

$$\text{tin} : 950.5 - 70 \times 11.5 = 145.5 \text{ (g)}$$

$$\text{(LB) tin} : 949.5 - 70 \times 12.5 = -9$$

< ?