

H.W
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Ex- 8B

i) 16 and 35 =

$F_{16} = 1, 2, 4, 8 \text{ and } 16$

$F_{35} = 1, 5, \text{ and } 35$

$C.F = 1$

$H.C.F = 1$

ii) 25 and 20 =

$F_{25} = 1, 5, 25$

$F_{20} = 1, 2, 4, 5, 20$

$C.F = 1, 5$

$H.C.F = 5$

iii) 27 and 75 =

$F_{27} = 1, 3, 9, 27$

$F_{75} = 1, 3, 5, 75$

$C.F = 1, 3$

$H.C.F = 3$

iv) 8, 12 and 18

$F_8 = 1, 2, 4, 8$

$F_{12} = 1, 2, 3, 4, 6, 12$

$F_{18} = 1, 2, 3, 6, 9, 18$

$C.F = 1, 2$

$H.C.F = 2$



v) 26, 36, 45 and 60

$F_{26} = 1, 2, 26$
 $F_{36} = 1, 2, 3, 4, 6, 36, 9, 36$
 $F_{45} = 1, 3, 5, 45$
C.F = 4
 $H.C.F = 1$

(Q2) i) 5 and 8

~~P.F of 5 and 8 =~~

P.F of 5 = 1×5 No HCF
P.F of 8 = $2 \times 2 \times 2$

ii) 24 and 49

P.F of 24 = $2 \times 2 \times 3 \times 2$
P.F of 49 = 7×7

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Division method
Example

| | | | | |
|----|--|-----|--|---|
| 36 | | 60 | | 1 |
| | | -36 | | |
| 24 | | 36 | | 1 |
| | | -24 | | |
| 12 | | 24 | | 2 |
| | | -24 | | |
| | | 0 | | |

HCF = 12

EX-8B

| | | | | |
|----|--|-----|--|---|
| 18 | | 30 | | 1 |
| | | -18 | | |
| 12 | | 18 | | 1 |
| | | -12 | | |
| 6 | | 12 | | 2 |
| | | -12 | | |
| | | 0 | | |

HCF = 6

Ex-8B

(3)

Date _____
Page _____

45, 75 and 135

45 and 75 = 75/45

$$\begin{array}{r} 45 \overline{) 75} \quad 1 \\ - 45 \\ \hline 30 \overline{) 45} \quad 1 \\ - 30 \\ \hline 15 \overline{) 30} \quad 2 \\ - 30 \\ \hline 0 \end{array}$$

HCF ~~= 45~~ of 45 and 75 is 15

$$\begin{array}{r} 15 \overline{) 135} \quad 9 \\ - 135 \\ \hline 0 \end{array}$$

HCF of 45, 75 and 135 is 15.

~~180 = 1, 2, 3, 6, 90~~

Ex-8B

(5) The greatest no. that divides each of 180, 225 and 315 will be the HCF of 180, 225 and 315. Using division method, the HCF of 180, 225 and 315 are shown below

$$\begin{array}{r}
 180 \overline{) 225} \quad 1 \\
 \underline{180} \\
 45 \overline{) 180} \quad 4 \\
 \underline{180} \\
 0
 \end{array}$$

$$\begin{array}{r}
 45 \overline{) 315} \quad 7 \\
 \underline{315} \\
 0
 \end{array}$$

HCF of 180, 225 and 315 = 45. ~~required~~
! no. is 45.

Ans- Required no. is the HCF of $(93-3)$,

$(111-3)$, $(129-3)$
= HCF of 90, 108 and 126.

90 and 108

$$\begin{array}{r}
 90 \overline{) 180} \quad 2 \\
 \underline{180} \\
 0
 \end{array}$$

HCF of 90 and 108 ~~is~~ is 18

18 and 126

$$\begin{array}{r}
 18 \overline{) 126} \quad 7 \\
 \underline{126} \\
 0
 \end{array}$$

Required no. is 18