**LUYỆN TẬP**

**4/18 tìm x không âm, biết**

**a/**$\sqrt{x}=2$ **b/** $\sqrt{x}+1=5$

**c/** $\sqrt{x-1}+1=4$ **d/** $\sqrt{x-1}=\sqrt{3}$

**10/18 Tìm x biết**

**a/**$\sqrt{x^{2}}=5$ b/ $\sqrt{x^{2}}=|-2|$

c/ $\sqrt{16x^{2}}=3$ d/ $\sqrt{9x^{2}}=|-2|$

**1/RÚT GỌN:**

**a/** $\sqrt{(5-\sqrt{6}})$**2 b/** $\sqrt{(2-\sqrt{5}})$**2**

**c/** $\sqrt{5-2\sqrt{6}}$ **d/** $\sqrt{8-2\sqrt{7}}$

**e/** $\sqrt{8+2\sqrt{15}}$ **-** $\sqrt{(7-2\sqrt{10}})$

**f/** $\sqrt{9+4\sqrt{5}}$ **-** $\sqrt{6+2\sqrt{5}}$

**g/(**$\sqrt{10}+\sqrt{12)}$$\sqrt{11-2\sqrt{30}}$

**h/ (**$\sqrt{6}+\sqrt{14)}$$\sqrt{10-2\sqrt{21}}$

**2/19 Rút gọn**

**a/** $\sqrt{5+2\sqrt{6}}- \sqrt{5-2\sqrt{6}}$

**b/** $\sqrt{8+\sqrt{60}}$ **-** $\sqrt{8-2\sqrt{15}}$

**d/** $\sqrt{5\sqrt{3}+5\sqrt{48-10\sqrt{7+4\sqrt{3}}}}$

**4/18 Tìm x không âm, biết**

**a/** $\sqrt{x}=2$

**vì x≥0, ta có** $\sqrt{x}=2 $**⬄ x=4 . vậy x=4**

**b/** $\sqrt{x}+1=5$ **vì x≥0, ta có** $\sqrt{x}+1=5$ **⬄** $\sqrt{x}=5-1$

**⬄**$\sqrt{x}=4$ **⬄ x=16. Vậy x=16**

**c/** $\sqrt{x-1}+1=4$ **vì x≥0, ta có**$\sqrt{x-1}+1=4$

⬄ $\sqrt{x-1}=3$ **⬄ x- 1= 9⬄x= 10. Vậy x=10**

**d/** $\sqrt{x-1}=\sqrt{3}$ **vì x≥0, ta có** $\sqrt{x-1}=\sqrt{3}$

**⬄x-1 =3 ⬄ x=4 . vậy x=4**

 **10/18 Tìm x biết**

**a/**$\sqrt{x^{2}}=5$ ⬄|x|=5⬄x=5 hay x=-5

b/ $\sqrt{x^{2}}=|-2|$ ⬄ |x| = 2⬄ x=2 hay x= -2

c/ $\sqrt{16x^{2}}=3$ ⬄ |4x|= 3⬄ 4x=3 hay 4x= -3⬄x=3/4 hay x= -3/4

d/ $\sqrt{9x^{2}}=|-2|$ ⬄ |3x| = 2⬄ 3x= 2 hay 3x = -2

⬄ x = 2/3 hay x= -2/3

**1/RÚT GỌN( tính)**

**a/** $\sqrt{(5-\sqrt{6}})$**2 = | 5-**$\sqrt{6} |$ **= ( 5 -**$\sqrt{6})$**= 5 -**$\sqrt{6}$

 **b/** $\sqrt{(2-\sqrt{5}})$**2 = | 2-** $\sqrt{5}$**| = (-2+**$\sqrt{5})= -2+\sqrt{5}$

c/ $\sqrt{5-2\sqrt{6}}$

**=**$\sqrt{3+2-2\sqrt{3.2}}$ **=**$\sqrt{\left(\sqrt{3}-\sqrt{2}\right)^{2}}$

**= |** $\sqrt{3}-\sqrt{2}|$ **=**$\sqrt{3}-\sqrt{2}$

**d/** $\sqrt{8-2\sqrt{7}}$

**=**$\sqrt{7+1-2\sqrt{7.1}}$ **=** $\sqrt{\left(\sqrt{7}-\sqrt{1}\right)^{2}}$

**=|**$\sqrt{7}-1$**|=** $\sqrt{7}-\sqrt{1}$

**e/** $\sqrt{8+2\sqrt{15}}$ **-** $\sqrt{(7-2\sqrt{10}})$

**=** $\sqrt{5+3+2\sqrt{5.3}}$ **–** $\sqrt{(5+2-2\sqrt{5.2}})$

**=** $\sqrt{\left(\sqrt{5}+\sqrt{3}\right)^{2}}$ **-** $\sqrt{\left(\sqrt{5}-\sqrt{2}\right)^{2}}$

**= |** $\sqrt{5}+\sqrt{3}|$ **- |** $\sqrt{5}-\sqrt{2}|$

**= (** $\sqrt{5}+\sqrt{3})$ **– (**$\sqrt{5}-\sqrt{2})$

**=**$\sqrt{5}+\sqrt{3}$ **-** $\sqrt{5}+\sqrt{2}$ **=** $\sqrt{3}+ \sqrt{2}$

**f/** $\sqrt{9+4\sqrt{5}}$ **-** $\sqrt{6+2\sqrt{5}}$

**=** $\sqrt{9+2.2\sqrt{5}}$ **-** $\sqrt{6+2\sqrt{5}}$

**=** $\sqrt{9+2.\sqrt{4}\sqrt{5}}$ **-** $\sqrt{6+2\sqrt{5}}$

**=** $\sqrt{5+4+2.\sqrt{4}\sqrt{5}} $ **–** $\sqrt{5+1+2\sqrt{5.1}}$

**=** $\sqrt{\left(\sqrt{5}+\sqrt{4}\right)^{2}}$ **–** $\sqrt{\left(\sqrt{5}+\sqrt{1}\right)^{2}}$

**= |**$\sqrt{5}+\sqrt{4}$**| - |** $\sqrt{5}+\sqrt{1}|$

**=** $(\sqrt{5}+2$**) – (1+**$\sqrt{5}$ **)**

**=** $\sqrt{5}$ **+2 – 1-** $\sqrt{5}$ **= 1**

**g/ (**$\sqrt{10}+\sqrt{12)}$$\sqrt{11-2\sqrt{30}}$

**= (**$\sqrt{10}+\sqrt{12)}$$\sqrt{ 6+5-2\sqrt{6.5}}$

**=(**$\sqrt{10}+\sqrt{12)}. \sqrt{\left(\sqrt{6}-\sqrt{5}\right)^{2}}$

**=(**$\sqrt{2.5}+\sqrt{2.6)}.$**|**$ \sqrt{6}-\sqrt{5}|$

**=**$\sqrt{2}$ **(**$\sqrt{5}+\sqrt{6)}$**. (**$\sqrt{6}-\sqrt{5})$

**=** $\sqrt{2}$ **(**$\sqrt{6}+\sqrt{5)}$**. (**$\sqrt{6}-\sqrt{5})$

**=**$\sqrt{2}$ **. (6- 5)=**$ \sqrt{2}$ **.1 =**$\sqrt{2}$

**h/ (**$\sqrt{6}+\sqrt{14)}$$\sqrt{10-2\sqrt{21}}$

**=(**$\sqrt{6}+\sqrt{14)}$$\sqrt{7+3-2\sqrt{7.3}}$

**= (**$\sqrt{6}+\sqrt{14)}\sqrt{\left(\sqrt{7}-\sqrt{3}\right)^{2}}$

**= (**$\sqrt{6}+\sqrt{14)}$**. |**$\sqrt{7}-\sqrt{3}|$

**= (**$\sqrt{6}+\sqrt{14)}$**.(** $\sqrt{7}-\sqrt{3}$**)**

**=** $\sqrt{42}-3\sqrt{2}$ **+7**$\sqrt{2}$ **-** $\sqrt{42}$

**=** $\sqrt{2}$ **. (-3+7) =4**$\sqrt{2}$