**VẤN ĐỀ 2: CĂN THỨC BẬC HAI VÀ HẰNG ĐẲNG THỨC** $\sqrt{A^{2}}$**= |A|**

**Dạng 1: Tính giá trị của biểu thức chứa căn thức bậc hai.**

**Bài 1**: Tính

|  |  |
| --- | --- |
| 1. $\frac{-4}{3}\sqrt{\left(-0,4\right)^{2}}$
 | 1. 4$\sqrt{\left(-3\right)^{6}}$+5$\sqrt{\left(-2\right)^{4}}$
 |
| 1. $\sqrt{144}.\sqrt{\frac{49}{64}}.\sqrt{0,01}$
 | 1. 72: $\sqrt{3^{2}+4^{2}}-3\sqrt{5^{2}-3^{2}}$
 |

**Bài 2**: Tính

|  |  |
| --- | --- |
| 1. $-\frac{7}{9}\sqrt{\left(-0,81\right)^{2}}$
 | 1. $\frac{6}{5}\sqrt{\left(-\frac{1}{36}\right)^{2}}$
 |
| 1. $\sqrt{49}.\sqrt{144}+\sqrt{256}:\sqrt{64}$
 | 1. 72: $\sqrt{2^{2}.3^{2}.36}-\sqrt{225}$
 |

**Bài 3**: Tính

|  |  |
| --- | --- |
| 1. $\sqrt{5}+\sqrt{\left(\sqrt{5}-5\right)^{2}}$
 | 1. $\sqrt{6+2\sqrt{5}}+\sqrt{6-2\sqrt{5}}$
 |
| 1. $\sqrt{\left(4-\sqrt{11}\right)^{2}}+\sqrt{11}$
 | 1. $\sqrt{8-2\sqrt{7}}-\sqrt{8+2\sqrt{7}}$
 |
| 1. $\sqrt{\left(2\sqrt{2}-7\right)^{2}}+2\sqrt{2}$
 | 1. $\sqrt{11+6\sqrt{2}}-\sqrt{11-6\sqrt{2}}$
 |
| 1. $\sqrt{\left(2-\sqrt{3}\right)^{2}}+\sqrt{\left(1-\sqrt{3}\right)^{2}}$
 | 1. $\sqrt{17+12\sqrt{2}}+\sqrt{17-12\sqrt{225}}$
 |

**Bài 4**: Thực hiện phép tính

|  |  |
| --- | --- |
| 1. $\sqrt{5+2\sqrt{6}}-\sqrt{5-2\sqrt{6}}$
 | 1. $\sqrt{\left(11-6\sqrt{2}\right)^{2}}+\sqrt{\left(11+6\sqrt{2}\right)^{2}}$
 |
| 1. $ \sqrt{41-12\sqrt{5}}-\sqrt{41+12\sqrt{5}}$
 | 1. $\sqrt{\left(10-4\sqrt{6}\right)^{2}}+\sqrt{\left(10+4\sqrt{6}\right)^{2}}$
 |
| 1. $\sqrt{49-12\sqrt{5}}+\sqrt{49+12\sqrt{5}}$
 | 1. $\sqrt{\left(4-\sqrt{5}\right)^{2}}+\sqrt{\left(4+\sqrt{5}\right)^{2}}$
 |
| 1. $\sqrt{29+12\sqrt{5}}+\sqrt{29-12\sqrt{5}}$
 | 1. $\sqrt{\left(7+\sqrt{2}\right)^{2}}-\sqrt{\left(7-\sqrt{2}\right)^{2}}$
 |

**Bài 5**: Chứng minh

|  |  |
| --- | --- |
| 1. $11+6\sqrt{2}=\left(3+\sqrt{2 }\right)^{2}$
 | c)$\sqrt{11+6\sqrt{2}}+\sqrt{11-6\sqrt{2}}=6$ |
| 1. $8-2\sqrt{7}=\left(\sqrt{7}-1\right)^{2}$
 | d)$\sqrt{8-2\sqrt{7}}-\sqrt{8+2\sqrt{7}}=-2$ |

**Bài 6**: Chứng minh

|  |  |
| --- | --- |
| 1. $28-10\sqrt{3}=\left(\sqrt{3}-5\right)^{2}$
 | c)$\sqrt{28-10\sqrt{3}}+\sqrt{28-10\sqrt{3}}=10$ |
| 1. $193-132\sqrt{2}=\left(11-6\sqrt{2}\right)^{2}$
 | d)$\sqrt{193-132\sqrt{2}}+\sqrt{193+132\sqrt{2}}=22$ |