

$(a^r + b^r - rab)^r (a^r + b^r + rab)^r = t(r - \sqrt{r})$ $\left((a-b)^r (a+b)^r \right)^r$ $\left((a-b)(a+b) \right)^r (a^r - b^r)^r = t(r - \sqrt{r}) \quad \boxed{t=19}$ $\left((\sqrt{r-x} - \sqrt{r+x})^r \right)^r \rightarrow \sqrt{r-x} + \sqrt{r+x} - 2\sqrt{r}$ $(\sqrt{r-x} - \sqrt{r+x})^2 = r-x-14\sqrt{r} - 14(r-x)$	$a = \sqrt{r-x} / b = \sqrt{r+x}$	6
$\left(a + \frac{1}{a} + \sqrt{r} \right)^r \left(a + \frac{1}{a} - \sqrt{r} \right)^r = r^t$ $\left(\left(a + \frac{1}{a} + \sqrt{r} \right) \left(a + \frac{1}{a} - \sqrt{r} \right) \right)^r = a^r + \frac{1}{a^r} + r \rightarrow \frac{r - \sqrt{r}}{1} + \frac{1}{r - \sqrt{r}} + r$ $\boxed{t=1}$ $a + \frac{1}{a} + r - r$ $\frac{(r - \sqrt{r})^2 + 1}{r - \sqrt{r}} + r = r^t$ $\frac{r^2 - 2r\sqrt{r} + r + 1}{r - \sqrt{r}} + r = r^t$ $\rightarrow \frac{1(r - \sqrt{r})}{r - \sqrt{r}} + r = r^t$ $1 + r = r^t$ $= r^1$	$a = \sqrt{r - \sqrt{r}}$	7
		8
		9
$\sqrt{n+a} + \sqrt{n-b} = p$ $\sqrt{n-b} = p - \sqrt{n+a}$ $n-b = p^2 - 2p\sqrt{n+a} + n+a$ $-b-a = p^2 - 2p\sqrt{n+a}$ $2p\sqrt{n+a} = p^2 + b+a$ $\sqrt{n+a} = \frac{p^2 + b+a}{2p}$	$\sqrt{n+a} - \sqrt{n-b} = r$ $\sqrt{n+a} = \sqrt{n-b} + r$	10