

Proof number 1: $\frac{(\text{=}(p(x1))(oct_2))\textit{Interpolant} : (\text{=}(p(x1))(oct_2))}{\text{asserted}}$

Proof number 2: $\frac{(\text{=}(3)(oct_2))\textit{Interpolant} : (\text{=}(3)(oct_2))}{\text{asserted}}$

Proof number 3: $\frac{(\text{or}(\text{=}(x1)(2))(not(\leq(x1)(2)))(not(\geq(x1)(2))))\textit{Interpolant} : (\text{or}(\text{=}(x1)(2))(not(\leq(x1)(2)))(not(\geq(x1)(2))))}{\text{th-lemma}}$

Proof number 4: $\frac{(\leq(x1)(2))\textit{Interpolant} : (\leq(x1)(2))}{\text{asserted}}$

Proof number 5: $\frac{(\text{or}(\geq(x1)(2))(\leq(x1)(1)))\textit{Interpolant} : (\text{or}(\geq(x1)(2))(\leq(x1)(1)))}{\text{th-lemma}}$

Proof number 6: $\frac{(\text{or}(\text{=}(x1)(1))(not(\leq(x1)(1)))(not(\geq(x1)(1))))\textit{Interpolant} : (\text{or}(\text{=}(x1)(1))(not(\leq(x1)(1)))(not(\geq(x1)(1))))}{\text{th-lemma}}$

Proof number 7: $\frac{(\leq(1)(x1))\textit{Interpolant} : (\leq(1)(x1))}{\text{asserted}}$

Proof number 8: $\frac{\frac{(\leq(1)(x1))\textit{Interpolant} : (\leq(1)(x1))}{x}}{\frac{(\geq(x1)(1))\textit{Interpolant} : (\geq(x1)(1))}{mp}}$

Proof number 9: $\frac{\frac{(\text{or}(\text{=}(x1)(1))(not(\leq(x1)(1)))(not(\geq(x1)(1))))\textit{Interpolant} : (\text{or}(\text{=}(x1)(1))(not(\leq(x1)(1)))(not(\geq(x1)(1))))}{x} \quad \frac{(\geq(x1)(1))\textit{Interpolant} : (\geq(x1)(1))}{x}}{\text{unit-resolution}}$

Proof number 10: $\frac{\frac{(\text{or}(\text{=}(x1)(1))(not(\leq(x1)(1)))(not(\geq(x1)(1))))\textit{Interpolant} : (\text{or}(\text{=}(x1)(1))(not(\leq(x1)(1)))(not(\geq(x1)(1))))}{x} \quad \frac{(\text{false})\textit{Interpolant} : (\text{false})}{x}}{\text{lemma}}$

Proof number 11: $\frac{\frac{(\text{or}(\text{=}(x1)(1))(not(\leq(x1)(1)))(not(\geq(x1)(1))))\textit{Interpolant} : (\text{or}(\text{=}(x1)(1))(not(\leq(x1)(1)))(not(\geq(x1)(1))))}{x} \quad \frac{(\text{not}(\text{=}(x1)(1)))\textit{Interpolant} : (\text{not}(\text{=}(x1)(1)))}{x}}{\text{unit-resolution}}$

Proof number 12: $\frac{\frac{(\text{or}(\geq(x1)(2))(\leq(x1)(1)))\textit{Interpolant} : (\text{or}(\geq(x1)(2))(\leq(x1)(1)))}{x} \quad \frac{(\text{not}(\leq(x1)(1)))\textit{Interpolant} : (\text{not}(\leq(x1)(1)))}{x}}{\text{unit-resolution}}$

Proof number 13: $\frac{\frac{(\text{or}(\text{=}(x1)(2))(not(\leq(x1)(2)))(not(\geq(x1)(2))))\textit{Interpolant} : (\text{or}(\text{=}(x1)(2))(not(\leq(x1)(2)))(not(\geq(x1)(2))))}{x} \quad \frac{(\geq(x1)(2))\textit{Interpolant} : (\geq(x1)(2))}{x} \quad \frac{(\leq(x1)(2))\textit{Interpolant} : (\leq(x1)(2))}{x} \quad \frac{(\geq(x1)(2))\textit{Interpolant} : (\geq(x1)(2))}{x}}{\text{unit-resolution}}$

Proof number 14: $\frac{(\text{=}(p(b))(oct_4))\textit{Interpolant} : (\text{=}(p(b))(oct_4))}{\text{asserted}}$

Proof number 15: $\frac{(\text{=}(5)(oct_4))\textit{Interpolant} : (\text{=}(5)(oct_4))}{\text{asserted}}$

Proof number 16: $\frac{(\text{=}(b)(oct_5))\textit{Interpolant} : (\text{=}(b)(oct_5))}{\text{asserted}}$

Proof number 17: $\frac{(\text{=}(2)(oct_5))\textit{Interpolant} : (\text{=}(2)(oct_5))}{\text{asserted}}$

Proof number 18: $\frac{\frac{(\text{=}(p(x1))(oct_2))\textit{Interpolant} : (\text{=}(p(x1))(oct_2))}{x} \quad \frac{(\text{=}(3)(oct_2))\textit{Interpolant} : (\text{=}(3)(oct_2))}{x} \quad \frac{(\text{=}(x1)(2))\textit{Interpolant} : (\text{=}(x1)(2))}{x} \quad \frac{(\text{=}(p(b))(oct_4))\textit{Interpolant} : (\text{=}(p(b))(oct_4))}{x} \quad \frac{(\text{=}(5)(oct_4))\textit{Interpolant} : (\text{=}(5)(oct_4))}{x} \quad \frac{(\text{=}(b)(oct_5))\textit{Interpolant} : (\text{=}(b)(oct_5))}{x} \quad \frac{(\text{=}(2)(oct_5))\textit{Interpolant} : (\text{=}(2)(oct_5))}{x}}{\text{unit-resolution}}$

$(\text{false})\textit{Interpolant} : (\text{false})$