Algebra II

What does $\sqrt{4}$ mean?

Name the parts of $\sqrt{x}$.

$$\sqrt{x}$$

Evaluate.

$\sqrt{49}$ = _____

$-\sqrt{49}$ = _____ $\sqrt{-49}$ = _____

$\sqrt{2^2}$ = _____ $\sqrt{(-2)^2}$ = _____

$\sqrt[3]{8}$ = _____ $\sqrt[3]{-8}$ = _____

$\sqrt[4]{81}$ = _____ $\sqrt[4]{-81}$ = _____

True / False

1) x is always positive. _____

2) $-x$ is always negative. _____

3) x^2 is always positive. _____

4) x^2 is never negative. _____

5) x^3 is never negative. _____

Evaluate.

$\sqrt{x^2}$ = _____ $\sqrt[3]{x^3}$ = _____ $\sqrt[4]{x^{12}}$ = _____

$\sqrt[4]{x^4}$ = _____ $\sqrt[3]{x^9}$ = _____

Simplify each expression. If the expression does not represent   (pg 262)
a real number, say so.

1)   a) $\sqrt{16}$ = ____   b) $-\sqrt{16}$ = ____   c) $\sqrt{-16}$ = ____   d) $\sqrt[4]{16}$ = ____

13) a) $\sqrt{a^2}$ = ____   b) $\sqrt{a^4}$ = ____   c) $\sqrt[4]{a^4}$ = ____   d) $\sqrt{a^6}$ = ____

Solve.

15) $x^2 = 144$

Assignment:
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1-34 all

For what values is each of the following true?

27) $\sqrt{(x + 5)^2} = x + 5$