Algebra II

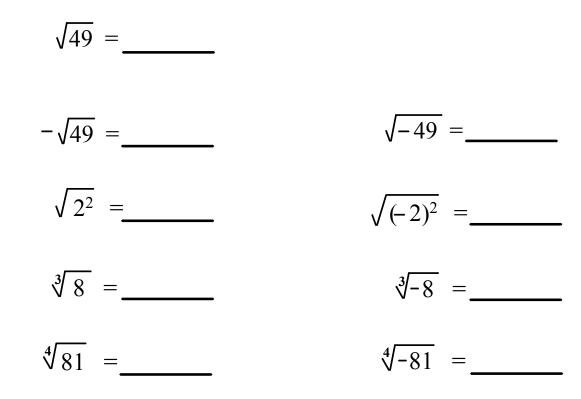
6-1 Roots of Real Numbers

 \sqrt{X}

What does $\sqrt{4}$ mean?

Name the parts of \sqrt{x} .

Evaluate.



True / False

1) x is always positive.

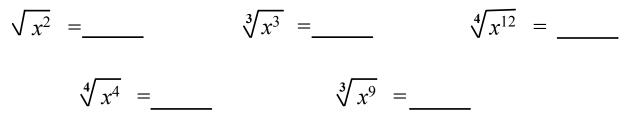
2) -*x* is always negative.

3) x^2 is always positive.

4) x^2 is never negative.

5) x^3 is never negative.

Evaluate.



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) $x^2 = 144$

For what values is each of the following true?

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

Assignment: Pg. 262 1-34 all