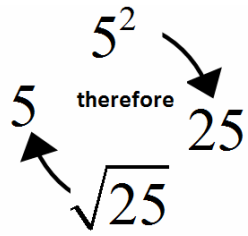
Powers and Roots Name_____



(1) Complete the following **WITHOUT A CALULATOR**

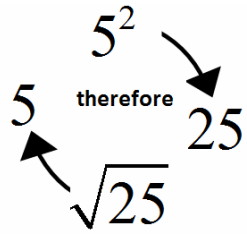
$5^2 = 25$ so $\sqrt{25} =$ ___
$6^2 = 36$ so $\sqrt{36} =$ ___
$7^2 = 49$ so $\sqrt{\quad} = 7$
$\_\_^2 = 81$ so $\sqrt{\quad} = 9$

(2) Find the following **WITHOUT A CALULATOR**

$3^3 =$	$4^3 =$
The square of 9	The square root of 144
$\sqrt[3]{8} =$	$2\times2\times2\times2 =$ ___ *or* ___
$\sqrt{64} =$	$\sqrt[3]{27} =$
$2^5 =$	$\sqrt{121} =$
6 cubed	The cube root of 125
$\sqrt{49} =$	$3^2\times3^2 =$
$6^2+2^2 =$	$\sqrt{16} =$
$3^3+12 =$	$4^4 =$
$10^3 =$	$\sqrt[3]{1000} =$
Write $2\times2\times2$ using index notation	
Write $3\times3\times3\times3$ using index notation	
Write $5\times5\times5$ using index notation	
Write in $6\times6\times6\times6\times6\times6$ using index notation	
Write in $p\times p\times p\times p\times p$ using index notation	

(3) Investigate the rules of indices for multiplication and division.

Powers and Roots Name_____



(1) Complete the following **WITHOUT A CALULATOR**

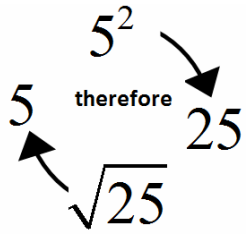
$5^2 = 25$ so $\sqrt{25} =$ ___
$6^2 = 36$ so $\sqrt{36} =$ ___
$7^2 = 49$ so $\sqrt{\quad} = 7$
$\_\_^2 = 81$ so $\sqrt{\quad} = 9$

(2) Find the following **WITHOUT A CALULATOR**

$3^3 =$	$4^3 =$
The square of 9	The square root of 144
$\sqrt[3]{8} =$	$2\times2\times2\times2 =$ ___ *or* ___
$\sqrt{64} =$	$\sqrt[3]{27} =$
$2^5 =$	$\sqrt{121} =$
6 cubed	The cube root of 125
$\sqrt{49} =$	$3^2\times3^2 =$
$6^2+2^2 =$	$\sqrt{16} =$
$3^3+12 =$	$4^4 =$
$10^3 =$	$\sqrt[3]{1000} =$
Write $2\times2\times2$ using index notation	
Write $3\times3\times3\times3$ using index notation	
Write $5\times5\times5$ using index notation	
Write in $6\times6\times6\times6\times6\times6$ using index notation	
Write in $p\times p\times p\times p\times p$ using index notation	

(3) Investigate the rules of indices for multiplication and division.

Powers and Roots Name_____



(1) Complete the following **WITHOUT A CALULATOR**

$5^2 = 25$ so $\sqrt{25} =$ ___
$6^2 = 36$ so $\sqrt{36} =$ ___
$7^2 = 49$ so $\sqrt{\quad} = 7$
$\_\_^2 = 81$ so $\sqrt{\quad} = 9$

(2) Find the following **WITHOUT A CALULATOR**

$3^3 =$	$4^3 =$
The square of 9	The square root of 144
$\sqrt[3]{8} =$	$2\times2\times2\times2 =$ ___ *or* ___
$\sqrt{64} =$	$\sqrt[3]{27} =$
$2^5 =$	$\sqrt{121} =$
6 cubed	The cube root of 125
$\sqrt{49} =$	$3^2\times3^2 =$
$6^2+2^2 =$	$\sqrt{16} =$
$3^3+12 =$	$4^4 =$
$10^3 =$	$\sqrt[3]{1000} =$
Write $2\times2\times2$ using index notation	
Write $3\times3\times3\times3$ using index notation	
Write $5\times5\times5$ using index notation	
Write in $6\times6\times6\times6\times6\times6$ using index notation	
Write in $p\times p\times p\times p\times p$ using index notation	

(3) Investigate the rules of indices for multiplication and division.