Name:_____ Date:_____

Math 8 Section 1.5a Perfect Squares and Cubes

1. Evaluate each of the following squares and cubes

a) $2^2 = 2 \times 2 =$	o) $2^3 = 2 \times 2 \times 2 =$
b) $3^2 = 3 \times 3 =$	p) $3^3 = 3 \times 3 \times 3 =$
c) $4^2 =$	q) $4^3 =$
d) $5^2 =$	r) $5^3 =$
e) $6^2 =$	s) $6^3 =$
f) $7^2 =$	t) $7^3 =$
g) $8^2 =$	u) $8^3 =$
h) $9^2 =$	v) $9^3 =$
i) $10^2 =$	w) $10^3 =$
j) $11^2 =$	x) $11^3 =$
k) $12^2 =$	y) $12^3 =$
L) $13^2 =$	z) $13^3 =$
m) $14^2 =$	aa) $14^3 =$
n) $15^2 =$	ab) $15^3 =$

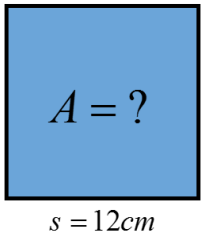
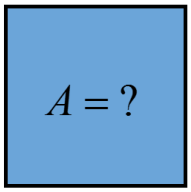
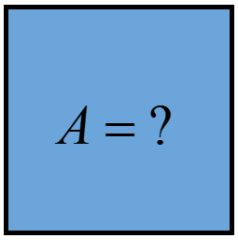
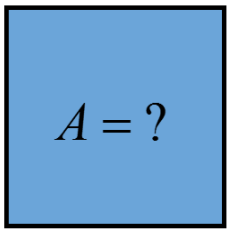
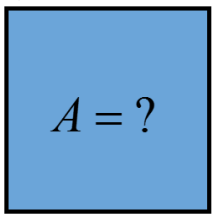
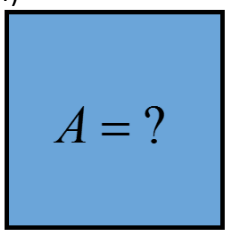
2. Given the following numbers, indicate which of the following are perfect squares:

a) 81	b) 225	c) 71	d) 169
e) 144	f) 289	g) 1000	h) 0
i) 25	J) 125	K) 100	L) 131
m) 121	n) 10,000	o) 49	p) 256
q) 400	r)441	s) - 25	t)1.44

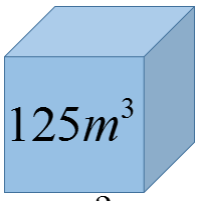
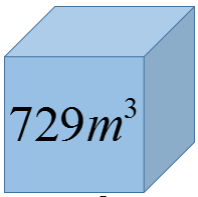
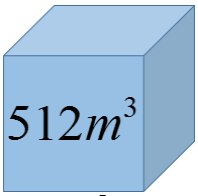
3. Given the following numbers, indicate which of the following are perfect cubes:

a) 8	b) 27	c) 256	d) 100
e) 144	f) 64	g) 1000	h) 0
i) 25	J) 125	K) 216	L) -8
m) 1	n) $10,000$	o) -343	p) 2^6

4. Find the area of each of the following squares:

a)  $s = 12cm$	b)  $s = 6cm$	c)  $s = 7m$
d)  $s = 20cm$	e)  $s = 17cm$	f)  $s = 25m$

5. Find the volume of each of the following cubes:

a)  $s = ?$	b)  $s = ?$	c)  $s = ?$

6. How many perfect squares are there between 200 and 600?

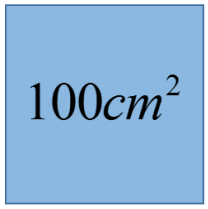
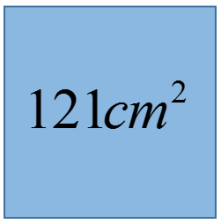
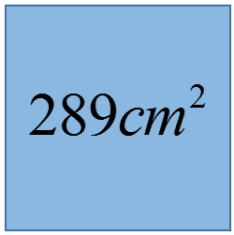
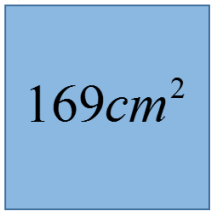
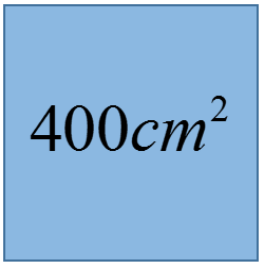
Name:_____ Date:_____

Math 8 Section 1.5b Square Roots and Cube Roots

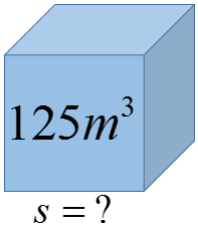
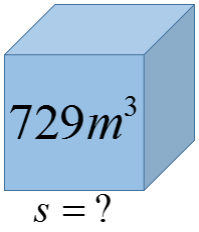
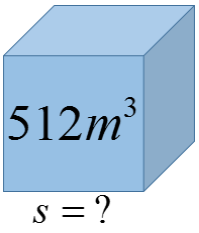
1. Evaluate each of the following squares and cubes

a) $\sqrt{4} =$	o) $\sqrt{36} =$
b) $\sqrt{25} =$	p) $\sqrt{49} =$
c) $\sqrt{100} =$	q) $\sqrt{64} =$
d) $\sqrt{121} =$	r) $\sqrt{400}$
e) $\sqrt{441} =$	s) $\sqrt{289} =$
f) $\sqrt{81} =$	t) $\sqrt{55^2} =$
g) $\sqrt{1} =$	u) $\sqrt{169} =$
h) $\sqrt{9^2} =$	v) $\sqrt{0} =$
i) $\sqrt{-25} =$	w) $\sqrt{8 \times 8} =$
j) $\sqrt{3 \times 3 \times 3 \times 3} =$	x) $\sqrt{5^4} =$
k) $\sqrt[3]{27} =$	y) $\sqrt[3]{8} =$
L) $\sqrt[3]{64} =$	z) $\sqrt[3]{1} =$
m) $\sqrt[3]{-8} =$	aa) $\sqrt[3]{125} =$
n) $\sqrt[3]{6 \times 6 \times 6} =$	ab) $\sqrt[3]{4^3} =$

2. Given the area of each square, find the length of its side

a) 	b) 	c) 
d) 	e) 	f) 

3. Given the volume of each cube, find the side length

a) 	b) 	c) 

4. Two squares stacked on top of each other is placed next to a larger square. What are the possible areas of the two smaller squares?