Warm-Up

Simplify the following expression.

1.

$$(6^2)^6 \div 6^{12}$$

- A. 1
- B. 6^4
- C. 6
- D. 6^{-4}

2.

Simplify the following expression.

$$2^3 \times 2^{-5}$$

- A. 16
- B. 4
- C. $\frac{1}{2}$
- D. $\frac{1}{4}$

3.

Which of the following is an equivalent representation of 2^{-2} ?

- A. $\frac{1}{8}$
- B. $\frac{1}{16}$
- C. $\frac{1}{4}$
- D. $\frac{1}{64}$

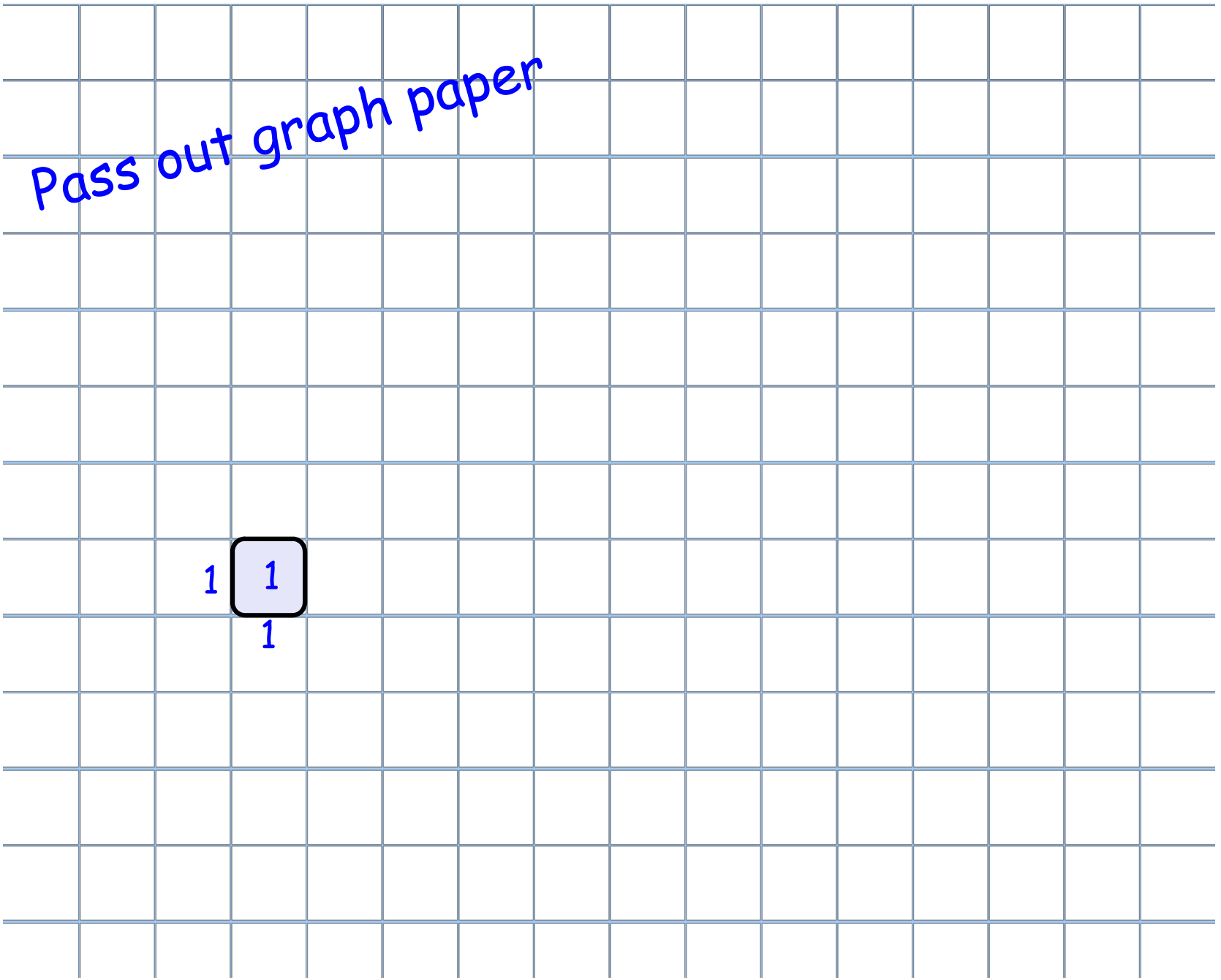
4.

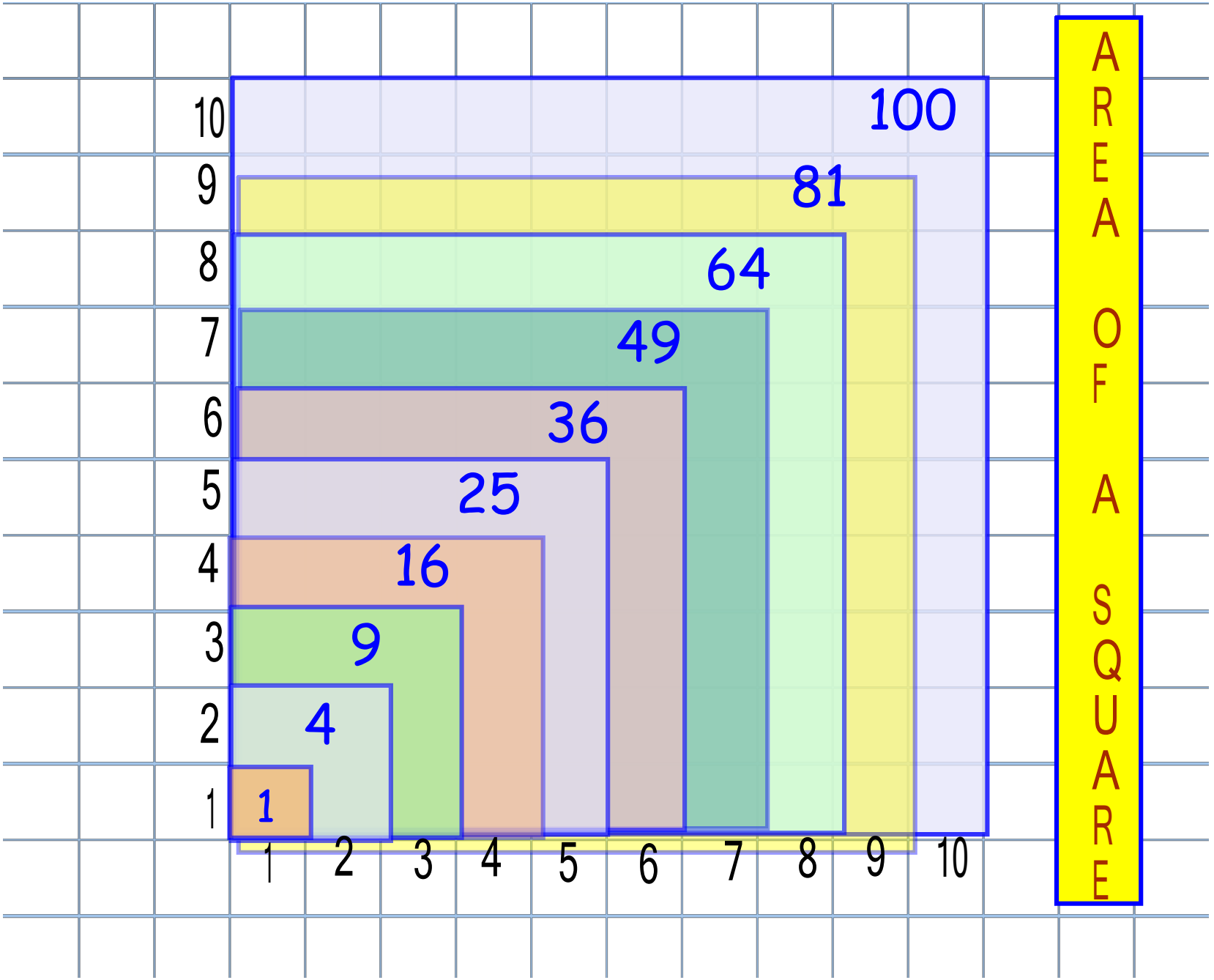
Simplify the following expression.

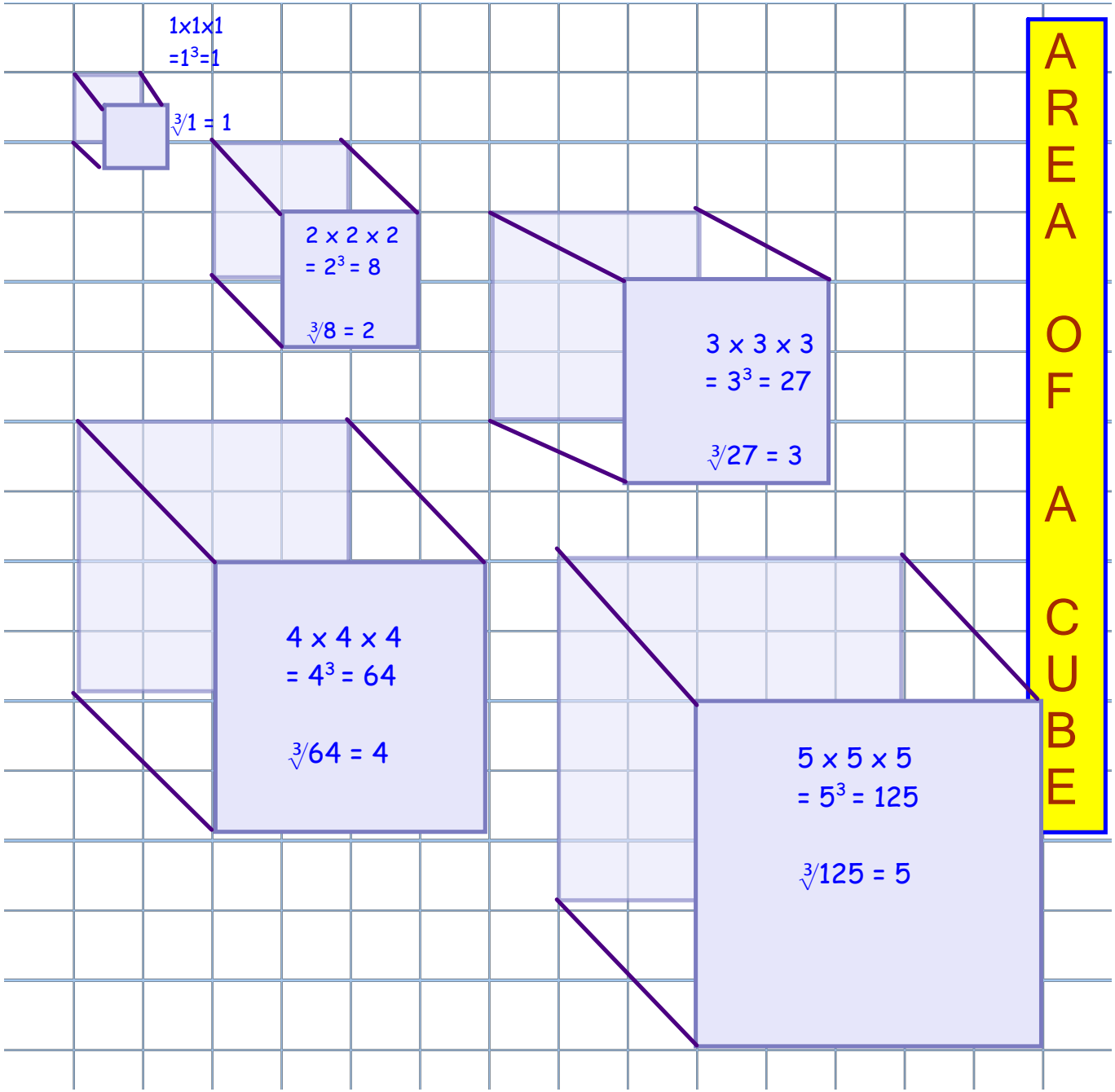
$$(7^4)^2 \times 7^6$$

- A. 7^2
- B. 7^{14}
- C. 7^{36}
- D. 7^{12}

Pass out graph paper




AREA OF A SQUARE
100
81
64
49
36
25
16
9
4
1
10
9
8
7
6
5
4
3
2
1
1 2 3 4 5 6 7 8 9 10

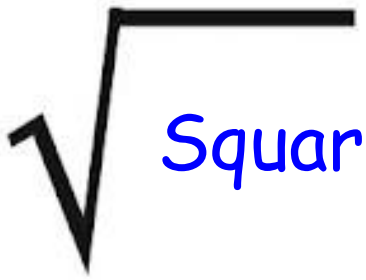

1x1x1
=1³=1
∛1 = 1
2 x 2 x 2
= 2³ = 8
∛8 = 2
3 x 3 x 3
= 3³ = 27
∛27 = 3
4 x 4 x 4
= 4³ = 64
∛64 = 4
5 x 5 x 5
= 5³ = 125
∛125 = 5
AREA OF A CUBE

http://www.brainpop.com/math/numbersandoperations/squareroots/

$\sqrt{1} = 1$
$\sqrt{4} = 2$
$\sqrt{9} = 3$
$\sqrt{16} = 4$
$\sqrt{25} = 5$
$\sqrt{36} = 6$
$\sqrt{49} = 7$
$\sqrt{64} = 8$
$\sqrt{81} = 9$
$\sqrt{100} = 10$

$\sqrt{121} = 11$
$\sqrt{144} = 12$
$\sqrt{169} = 13$
$\sqrt{196} = 14$
$\sqrt{225} = 15$
$\sqrt{256} = 16$
$\sqrt{289}=17$
$\sqrt{324} = 18$
$\sqrt{361} = 19$
$\sqrt{400} = 20$

$\sqrt{625}=25$



Square Root

$\sqrt[3]{1} = 1$

$\sqrt[3]{8} = 2$

$\sqrt[3]{27} = 3$

$\sqrt[3]{64} = 4$

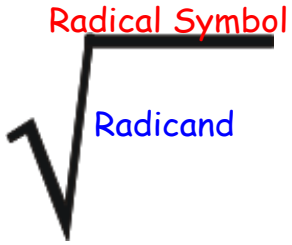
$\sqrt[3]{125} = 5$

$\sqrt[3]{216} = 6$

$\sqrt[3]{1000} = 10$

$\sqrt[3]{}$ Cube Root

Couple of Rules....



$\sqrt{-9}$ vs $\sqrt{9}$

and

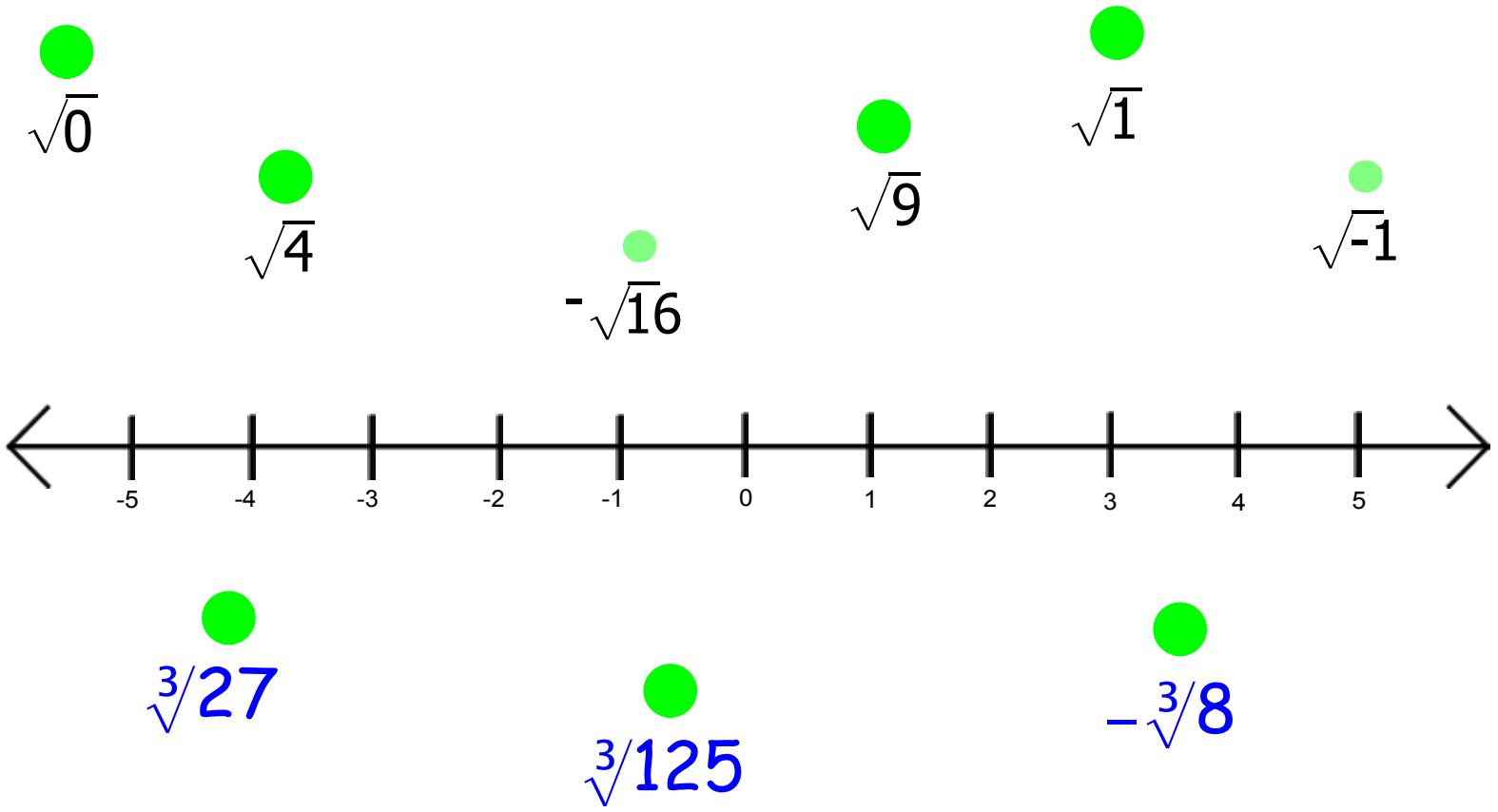
$\sqrt{0} = \pm$

$\sqrt{1} = \pm$

$\sqrt{4} = \pm$

Hmmm.....what about a cube root?

8


$\sqrt{0}$
$\sqrt{4}$
$-\sqrt{16}$
$\sqrt{9}$
$\sqrt{1}$
$\sqrt{-1}$
-5
-4
-3
-2
-1
0
1
2
3
4
5
$\sqrt[3]{27}$
$\sqrt[3]{125}$
$-\sqrt[3]{8}$

1. What is the square root of positive 121?

2. What is the negative square root of positive 16?

3. What is the square root of positive 1?

4. What is the negative square root of positive 196?

5. What is the square root of positive 49?

6. What is the negative square root of negative 400?

7. What is the cube root of 1000?

8. What is the negative cube root of 64?

$\sqrt{5}$

Radicand = _____

Index = _____

$\sqrt{5}$

$\sqrt[3]{6}$

Radicand = _____

Index = _____

$\sqrt[3]{6}$

Find each square root.

1) $\sqrt{64}$

2) $\sqrt{36}$

3) $\sqrt{49}$

4) $\sqrt{0}$

5) $\sqrt{25}$

6) $\sqrt{1}$

Find cube root

1) $\sqrt[3]{125}$ = ____	2) $\sqrt[3]{64}$ = ____	3) $\sqrt[3]{8}$ = ____
4) $\sqrt[3]{512}$ = ____	5) $\sqrt[3]{1}$ = ____	6) $\sqrt[3]{27}$ = ____
7) $\sqrt[3]{1{,}000}$ = ____	8) $\sqrt[3]{1{,}728}$ = ____	9) $\sqrt[3]{1{,}331}$ = ____

Attachments

- http://my.hrw.com/
- http://mysite.cherokee.k12.ga.us/personal/karen_lawrence/site/default.aspx