Station 1

I can rewrite expressions involving radicals...using the properties of exponents.

1. $x^0 = 1$

2. y^{18}

3. $\frac{1}{x}$

4. 1

5. $\frac{1}{x^8}$

6. $\frac{1}{(-2)^3} = -\frac{1}{8}$

7. $\frac{x^3}{16y^2z^7}$

8. $\frac{36c^5}{a}$

9. $\frac{125z^6}{27x^3y^3}$

Station 2

I can evaluate expressions with rational exponents.

1. $60^{\frac{1}{4}}$
2. $15^{\frac{2}{3}}$
3. $(-70)^{\frac{1}{5}}$
4. $\sqrt[3]{45}$
5. $(\sqrt[3]{64})^4$
6. $\sqrt{100}$

I can find nth roots.

7. 3
8. -2
9. 256

Station 3

I can solve real-life problems involving rational exponents.

1. 4 cm

I can solve real-life problems involving exponential functions.

2. a) $y = 10(7)^x$

b) 403,536,070

Station 4

I can identify and evaluate exponential functions.

1. Exponential; ratio = $\frac{1}{2}$

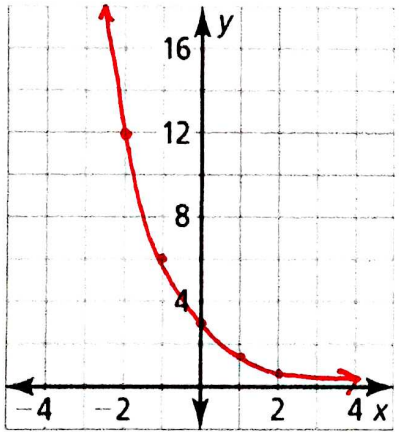
2. Linear; constant rate of change

3. 196

4. -729

I can graph exponential functions.

5.

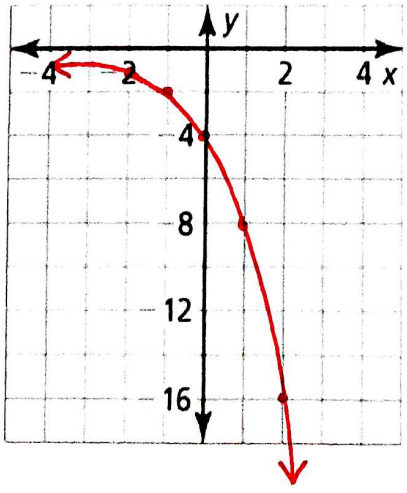


x	y
-2	12
-1	6
0	3
1	1.5
2	0.75

D: $\mathbb{R}$

R: $y > 0$

6.



x	y
-2	-1
-1	-2
0	-4
1	-8
2	-16

D: $\mathbb{R}$

R: $y < 0$

Station 5

I can use and identify exponential growth and decay functions.

1. Exponential growth

2. Neither

3. Exponential decay

I can interpret and rewrite exponential growth and decay functions.

4. Exponential growth ; r = 17%.

5. Exponential decay ; r = 26%.

Station 6

I can solve real-life problems involving exponential growth and decay.

1. a. $y = 100000(1.08)^t$

   b. 159,000 people

2. a. $y = 400(0.65)^t$

   b. $109.35