

## mobius

## Algebra with Exponents - Binomial and Constant



Simplify and solve for q

$$6^{(q+7)}=36_{_{
m A}}$$

$$\begin{vmatrix} \overset{ ext{ iny q}}{q} = -1 \end{vmatrix}^{ ext{ iny g}} q = -5$$

2

Simplify and solve for m

$$-6^{(m+4)}=216_{\tiny{lack}}$$

$$6^{(m+4)} = 216_{\parallel}$$

$$m=-1$$
  $m=0$ 

3

Simplify and solve for r

4

Simplify and solve for y

$$\mathsf{5}^{(r+7)}=\mathsf{25}_{\scriptscriptstyle{race A}}$$

$$\stackrel{\scriptscriptstyle\mathsf{A}}{|} r = -5 \stackrel{\scriptscriptstyle\mathsf{B}}{|} r = 9$$

 $2^{(y+8)} = 32_{\tiny{A}}$ 

$$y=$$
 –3  $y=2$ 

5

Simplify and solve for y

8

Simplify and solve for x

$$4^{(y-8)} = 64_{\text{\tiny A}}$$

$$\overset{ extstyle extstyle A}{y} = extstyle 11 \overset{ extstyle extstyle B}{y} = -5$$

 $\mathbf{3}^{(x-8)}=\mathbf{81}_{\scriptscriptstyle{ar{\mathsf{A}}}}$ 

$$x=12$$
  $x=-4$ 

7

Simplify and solve for m

Simplify and solve for t

$$6^{(m-8)} = 36_{\tiny{R}}$$

$$m=-6$$
  $m=10$ 

 $\mathbf{4}^{(t-7)}=\mathbf{16}_{\scriptscriptstyle{\mathsf{A}}}$ 

$$oxed{t}=-1 oxed{t}=\mathbf{9}$$