10.4

Zero and Negative Exponents

Do Now

Simplify.

1) $h^2 \cdot h^4$

2) $z \cdot z^{12}$

3) $\left(y^2\right)^4$

4) $\left(x^2 y^3\right)^3$

5) $\left(5a^8\right)^2$

6) $\dfrac{x^8}{x^3}$

7) $\dfrac{a^9 b}{a^2}$

Understanding Zero Exponents

Use the pattern to find the zero exponent result:

	Simplified Exponent	Evaluate
$\frac{2^6}{2^2}$		
$\frac{2^6}{2^3}$		
$\frac{2^6}{2^4}$		
$\frac{2^6}{2^5}$		
$\frac{2^6}{2^6}$		

Zero Exponent Rule

Any number to the zero power equals to _____.

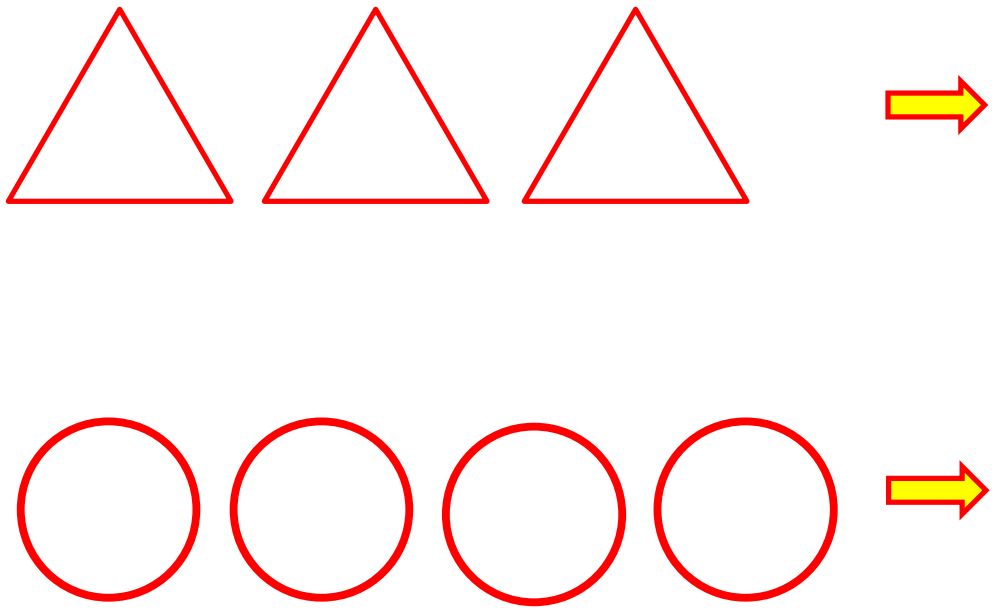
a) 4^0

b) 17^0

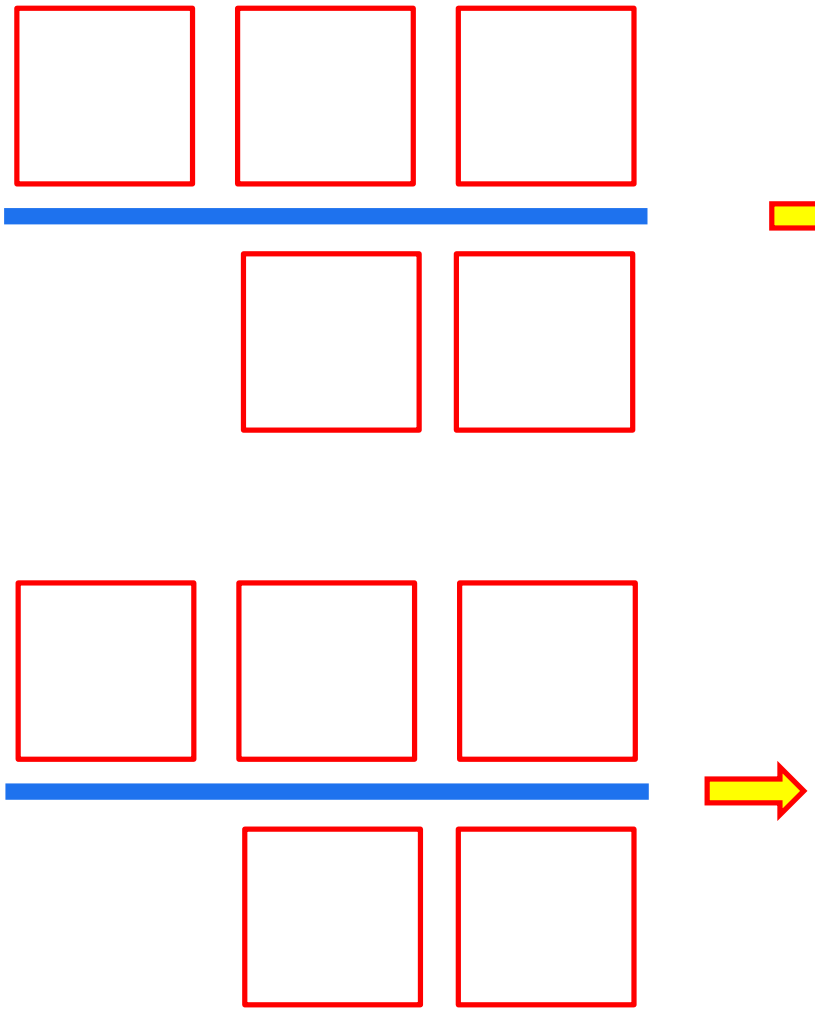
c) 125^0

d) $5,785,123^0$

Understanding: Gathering and Cancelling Activity

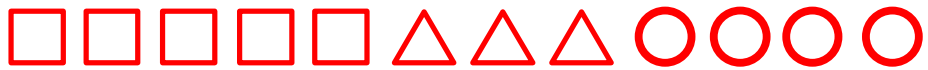


Understanding: Gathering and Cancelling Activity



Understanding: Gathering and Cancelling Activity

Gather and cancel as much as possible. ***(Order of shapes doesn't matter)***

1) 

2) 

3) 

4) 

Understanding: Gathering and Cancelling Activity

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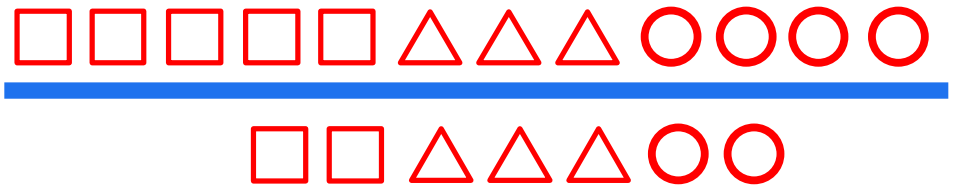
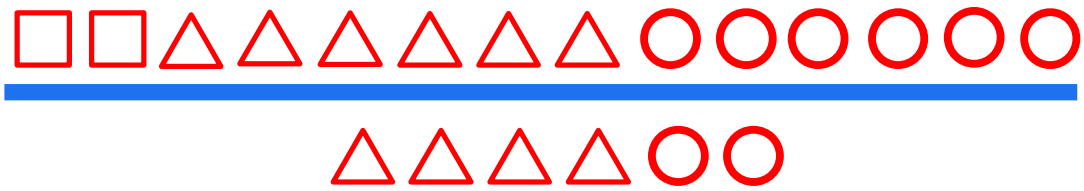
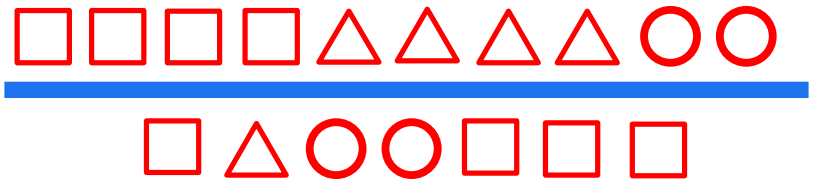
5) 

6) 

7) 

Understanding: Gathering and Cancelling Activity

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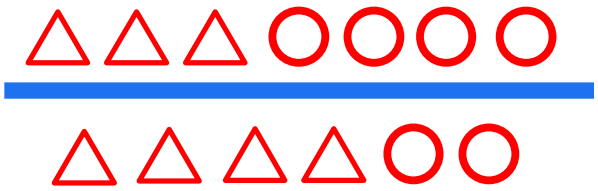
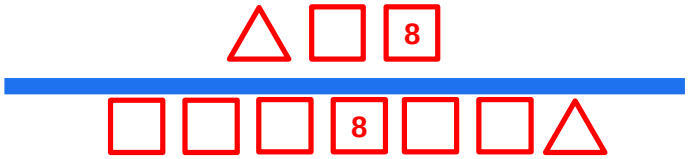
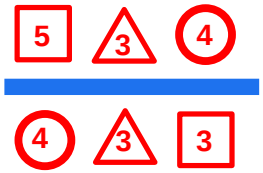
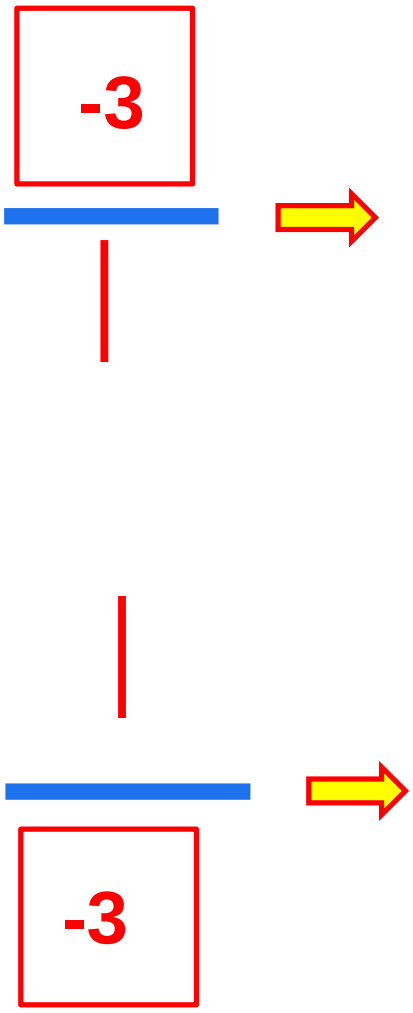
8) 

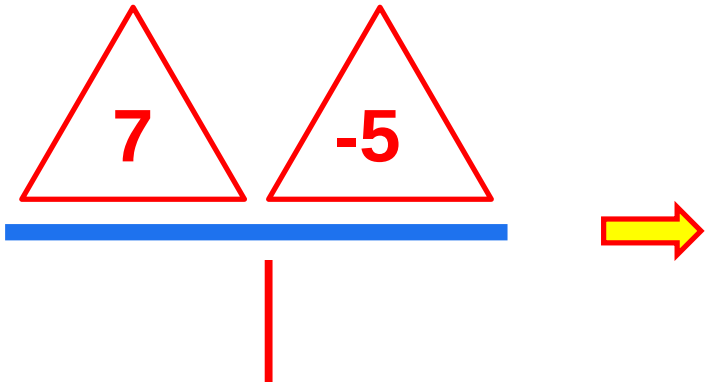
9) 

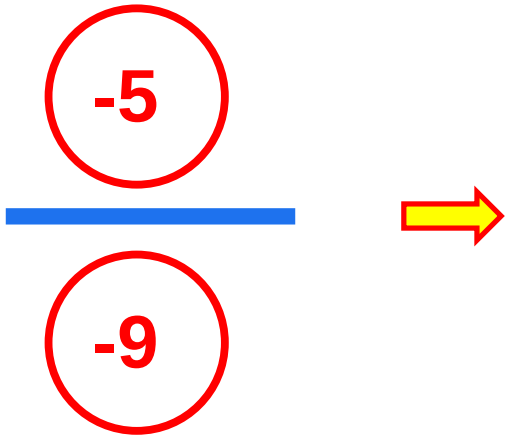
10) 

Understanding: Gathering and Cancelling Activity



Understanding: Gathering and Cancelling Activity





Understanding: Gathering and Cancelling Activity

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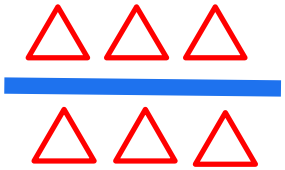
11) 

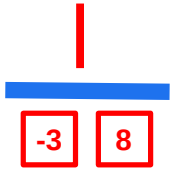
12) 

13) 

Understanding: Gathering and Cancelling Activity

Gather and cancel as much as possible. ***(Order of shapes doesn't matter)***

14) 

15) 

13)