Name: _____

Solve the following problems **without a calculator**. You _MUST_ show your work. ***NO WORK = NO CREDIT.***

1. Simplify.
 	
  a) $(6r)(5r^2)$
 	
  b) $10xy^3 \cdot 8x^5y^3$
 	
  c) $21d^7 \cdot 2d^3$
	2. What is the value of the expression?
	
	  $-(5^1 \cdot 4^{-3} \cdot 5^2 \cdot 5^0 \cdot 4^2 \cdot 5^{-2} \cdot 4^3)$

3. What is the value of x in the equation below? $x^2 + 1 = 50$	4. The area of a square is 81cm^2. What is the perimeter, in cm, of the square?

Solve the following problems **without a calculator**. You _MUST_ show your work. ***NO WORK = NO CREDIT.***

1. Simplify.
 	
  a) $(x^3)^6$
 	
  b) $(5r^5)^2$
 	
  c) $(7h^2z^3)^2$
	2. Solve for h.
	
	  $h^2 = \dfrac{4}{25}$

3. Solve for x in the equation.
 	
  $x^3 + 80 = 144$
	4. Simplify in exponential form.
	
	  a) $(2^2)(2^3 \cdot 3^2)^2$
	
	  b) $(-3x^3y^2)(5xy^{-1})$

Homework - Wednesday (January 30, 2019)
Solve the following problems **without a calculator**. You *MUST* show your work. ***NO WORK = NO CREDIT.***

1. Simplify in exponential form. a) $\dfrac{8^{22}}{8^{13}}$ b) $\dfrac{10p^4}{6p}$	2. What is the value of the expression? $$\dfrac{5^2 \cdot 3^6 \cdot 5^2}{3^4 \cdot 5^2 \cdot 3^2}$$
3. What is the <u>sum</u> of the solutions to the following equation? $x^2 = 169$	4. Simplify. a) $\dfrac{14x^5y^7}{6x^1y^4}$ b) $\dfrac{12x^28y^3}{xy}$

Homework - Thursday (January 31, 2019)
Solve the following problems **without a calculator**. You *MUST* show your work. ***NO WORK = NO CREDIT.***

1. Simplify. a) $5^{-4} \cdot 5^0$ b) $(2)^{-6}$ c) $4^{-3} \cdot 4^6$	2. Simplify. $(20x^6y) \cdot (¼ \, x^2y)$
3. Simplify. $\dfrac{(2x^5y)^3}{36x^8y^6}$	4. Simplify. a) $\dfrac{7s}{35t^{-3}}$ b) $\dfrac{3m^{-2}}{n}$