

Student Name: _____

Score: _____

Laws of Exponents Worksheet

Rewrite the following as single exponent using exponent rules:

Problems

Work Space

$$(a^{-4}a^{12})^2$$

Answer:

$$\left(\frac{y^0y^5y^{-4}}{y^4y^{-6}}\right)^3$$

Answer:

$$\left(\frac{s^{-5}}{s^{-3}}\right)^4 \times \left(\frac{s^8}{s^{-4}}\right)^6 \div \left(\frac{s^{11}}{s^7}\right)^2$$

Answer:

$$\frac{\left(\frac{m}{n}\right)^5 \left(\frac{m}{n}\right)^{-6} \left(\frac{m}{n}\right)^0}{\left(\frac{m}{n}\right)^{20}}$$

Answer:

$$\frac{(z^6z^2z^{-11})^4}{z^{-13}}$$

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Answers

$(a^{-4}a^{12})^2$	
Answer: a^{16}	
$\left(\frac{y^0y^5y^{-4}}{y^4y^{-6}}\right)^3$	
Answer: y^9	
$\left(\frac{s^{-5}}{s^{-3}}\right)^4 \times \left(\frac{s^8}{s^{-4}}\right)^6 \div \left(\frac{s^{11}}{s^7}\right)^2$	
Answer: s^{56}	
$\frac{\left(\frac{m}{n}\right)^5 \left(\frac{m}{n}\right)^{-6} \left(\frac{m}{n}\right)^0}{\left(\frac{m}{n}\right)^{20}}$	
Answer: $\left(\frac{n}{m}\right)^{21}$	
$\frac{(z^6z^2z^{-11})^4}{z^{-13}}$	
Answer: z^1	