

Name : _____

Simplifying Expressions: Exponents

MS1

Simplify each expression.

1) $(3m^5n^5p^{-2})(2m^2n^{-3}p^4)(5m^{-2}np^{-2})$

2) $\frac{-2x^{-9}y^{-1}}{8x^{-3}y^4}$

3) $\frac{4p^7q^2r^4}{6p^{-1}qr}$

4) $(2x^{-3}y^{-2}z^4)^{-2}$

5) $\frac{25a^{-4}b^{-9}}{5a^{-2}b^{-3}}$

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7) $(5u^3v^{-4}w^5)(\dots)$

9) $\frac{3p^{-5}q^9r^7}{12p^{-2}qr^2}$

10) $\frac{30y^7z^2}{5y^2z^{-6}}$

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Answer key

Simplifying Expressions: Exponents

MS1

Simplify each expression.

1) $(3m^5n^5p^{-2})(2m^2n^{-3}p^4)(5m^{-2}np^{-2})$

$30m^5n^3$

2) $\frac{-2x^{-9}y^{-1}}{8x^{-3}y^4}$

$-\frac{1}{4x^6y^5}$

3) $\frac{4p^7q^2r^4}{6p^{-1}qr}$

$\frac{2}{3}p^8qr^3$

5) $\frac{25a^{-4}b^{-9}}{5a^{-2}b^{-3}}$

$\frac{5}{a^2b^6}$

7) $(5u^3v^{-4}w^5)(-20u^2v^2w^{-2})$

$-100u^5w^2$

9) $\frac{3p^{-5}q^9r^7}{12p^{-2}qr^2}$

$\frac{q^8r^5}{4p^3}$

10) $\frac{30y^7z^2}{5y^2z^{-6}}$

$6y^5z^8$

PREVIEW

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