Simplify:

$$(81a^8b^4)^{2.5}$$

$$\frac{a^6}{9}$$

Solve Using Desmos:

$\mathcal{B}$

$$125^{x-1} = \left(\sqrt{5}\right)^5$$

$$x^{\frac{1}{2}}$$

Solve by rewriting as a radical:

C

$$(-6 + 7n)^{\frac{1}{2}} = n$$

$$\left\{\frac{11}{6}\right\}$$

Simplify:

D

$$a^{\frac{2}{3}} \cdot a^{\frac{3}{4}}$$

$$\frac{x^3}{y^{\frac{1}{2}}}$$

Solve Using Desmos:

E

$$81^{-2x+3} = \frac{1}{9}$$

$\{63\}$

Simplify:

$$\frac{\sqrt{64x^3}}{(8x)^{\frac{1}{3}}}$$

$\{6, 1\}$

Simplify:

G

$$\sqrt[3]{64a^3b^6}$$

$$\left\{\frac{7}{4}\right\}$$

Simplify:

$$\frac{\left(\sqrt{x}\right)^5}{\sqrt[3]{x^6}}$$
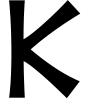
$$2x^{\frac{2}{9}}$$

Solve by rewriting as a radical:

I

$$(10 - r)^{\frac{1}{2}} = (2r - 8)^{\frac{1}{2}}$$

$$4x^7$$

Solve using Desmos:

J

$$8^{\frac{x}{3}} = \left(\sqrt[3]{64}\right)^2$$

$\{6\}$

Simplify:

K

$$\frac{(4x^4)^{2.5}}{\left(\sqrt{4x^2}\right)^3}$$

$$4ab^2$$

Simplify:

L

$$\frac{\left(\dfrac{a^9}{27}\right)^{\frac{2}{3}}}{4x^{\frac{7}{6}}}$$

Solve by rewriting as a radical:

$$7 = (r + 1)^{\frac{1}{2}} - 1$$

$$59049 \, a^{20} \, b^{10}$$

Simplify:

$$\left(\frac{y^{\frac{1}{3}} x^{-2}}{x^{-4} y^{\frac{2}{3}}} \right)^{\frac{3}{2}}$$

$$x^{\frac{1}{4}} \, y^{\frac{3}{10}}$$

Simplify:

O

$$\left(8x^{\frac{2}{3}}\right)^{\frac{1}{3}}$$

$$a^{\frac{17}{12}}$$

Simplify:

p

$$\left(x^{\frac{1}{3}}y^{\frac{2}{5}}\right)^{\frac{3}{4}}$$

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