Answers after each slide

Simplify

$x^6 x^2 =$ _____

$\frac{x^6}{x^2} =$ _____

$(x^6)^2 =$ _____

Simplify

$x^6 x^2 = x^8$

$\frac{x^6}{x^2} = x^4$

$(x^6)^2 = x^{12}$

$2x^3(3x) =$ _____

$$\frac{12x^3y^2}{4x^2yz} =$$ _____

$$2x^3(3x^1) = 6x^4$$

$$\frac{12x^3y^2}{4x^2yz} = 3xz$$

$(2x^4y)^3 =$ _____

$(-3x^6)^3 =$ _____

$$(2x^4y)^3 = 2^3 x^{12} y^3 = 8x^{12}y^3$$

$$(-3x^6)^3 = (-3)^3 x^{18} = -27x^{18}$$

Name the Property

$7(1) = 7$

$6 + 2 = 2 + 6$

$1 + (2 + 3) = (1 + 2) + 3$

$7(2 + x) = 7(2) + 7x$

$7(1) = 7$ xID

$6 + 2 = 2 + 6$ Comm

$1 + (2 + 3) = (1 + 2) + 3$ Assoc

$7(2 + x) = 7(2) + 7x$ Distributive

Write as a rational

6

.3

-4

$1\frac{1}{2}$

Write as a rational

6	$\frac{6}{1}$
.3	$\frac{3}{10}$
-4	$\frac{-4}{1}$
$1\frac{1}{2}$	$\frac{3}{2}$

Simplify

5^2

$(.1)^2$

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

$(-4)^2$

Simplify

5^2 25

$(.1)^2$ .01

$\left(\frac{2}{3}\right)^2$ $\frac{4}{9}$

$(-4)^2$ 16 ~~-16~~ $+16$

Simplify

$\sqrt{25}$

$\sqrt{.09}$

$\sqrt{\frac{16}{25}}$

Simplify

$\sqrt{25}$ 5

$\sqrt{.09}$ $.3$

$\sqrt{\frac{16}{25}}$ $\frac{4}{5}$ $\frac{\sqrt{16}}{\sqrt{25}} = \frac{\sqrt{16}}{\sqrt{25}}$

Rational or Irrational?

$\sqrt{25}$

π

$\frac{2}{3}$

0

$.\overline{3}$

$\frac{9}{0}$

$\sqrt{11}$

$6\frac{2}{3}$

Rational or Irrational?

$\sqrt{25}$	R	$.\overline{3}$	R
π	I	$\frac{9}{0}$	neither not real
$\frac{2}{3}$	R	$\sqrt{11}$	I
0	R	$6\frac{2}{3}$	R

Solve for x

$$2(3x+6)=18$$

Solve for x

$2(3x+6)=18$

$6x+12=18$

$-12 \quad -12$

$\frac{6x}{6}=\frac{6}{6}$

$x=1$

$$3(4x+1)+1^{3}-8^{0}=27$$

$$3(4x+1)+1^{3}-8^{0}=27$$

$$12x+3+1-1=27$$

$$12x+3=27$$
$$-3 \quad -3$$

$$\frac{12x}{12}=\frac{24}{12}$$

$$x=2$$

Simplify

$$\frac{2\sqrt{9}}{\sqrt{25+144}}$$

$$\sqrt{25}+\sqrt{144}$$

Simplify

$2\sqrt{9} = 2(3) = 6$

$\sqrt{25+144} = \sqrt{169} = 13$

$\sqrt{25} + \sqrt{144}$

$5 + 12 = 17$