

Quiz 5: Math 40

Name (print) _____

KEY

Simplify.

$$-\sqrt{\frac{25}{49}} = -\frac{5}{7}$$

$$\sqrt{(7-2t)^2} = |7-2t|$$

$$\begin{aligned} \sqrt{4x^2+12x+9} &= \sqrt{(2x+3)^2} \\ &= |2x+3| \end{aligned}$$

Write an equivalent expression using radical notation

$$y^{2/5} = \sqrt[5]{y^2}$$

Simplify. Use only positive exponents

$$10^{1/3} 10^{1/6} = 10^{2/6 + 1/6} = 10^{1/2}$$

$$\frac{9^{1/4}}{9^{1/8}} = 9^{2/8 - 1/8} = 9^{1/8}$$

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

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Simplify.

$$-\sqrt{\frac{49}{81}} = -\frac{7}{9}$$

$$\sqrt{(7t-4)^2} = |7t-4|$$

$$\begin{aligned} \sqrt{9x^2+12x+4} &= \sqrt{(3x+2)^2} \\ &= |3x+2| \end{aligned}$$

Write an equivalent expression using rational exponent

$$\sqrt[5]{y^3} = y^{3/5}$$

Simplify. Use only positive exponents

$$\frac{10^{1/3}}{10^{1/6}} = 10^{2/6 - 1/6} = 10^{1/6}$$

$$9^{1/4} 9^{1/8} = 9^{2/8 + 1/8} = 9^{3/8}$$

$$(a^2 2^3)^5 = a^{10} 2^{15}$$