I can solve equations with radical expressions and expressions with rational exponents.

Level 1:

Solve and check your solutions.

1.
$$5 = -3x^{\frac{1}{3}} - 1$$

$$\frac{\sqrt{2} - 8}{5 = -3 \times \frac{1}{3} - (\frac{(-2)(x^{\frac{1}{3}})^{3}}{1 + 1} + 1$$

$$\frac{6 = -3 \times \frac{1}{3} - (\frac{(-8 - 1)^{3}}{1 + 1})^{3}}{\frac{(-8 - 1)^{3}}{1 + 1}}$$

3.
$$81 = -3(2x - 1)^{\frac{3}{4}}$$

3.
$$\frac{81 = -3(2x - 1)^{\frac{3}{4}}}{-3}$$

$$\frac{4}{3} \left(-27\right) = \left((2x - 1)^{\frac{3}{4}}\right)^{\frac{1}{3}}$$

$$4 = x$$

5.
$$-2 = -6 + (3a - 7)^{\frac{2}{3}}$$



$$2.\left(\sqrt[3]{2x+1}\right)=\left(\sqrt[3]{5x+7}\right)^{3}$$

$$2 \times 11 = 5 \times 17$$

 $-2 \times 1 = 3 \times 17$
 $-7 - 7$

$$-6=3\chi$$

$$-2=\chi$$

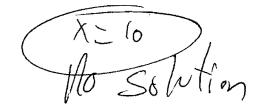
4.
$$\sqrt{3x-5}+7=2$$

$$-7 -7$$

$$(\sqrt{3}x-5)^{2}=(-5)^{2}$$

$$3x-5=25$$

$$\frac{3 \times 36}{3}$$



X=-3 X=1

X=12-14=1

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Level 2/3:

4. Solve and check your solutions.

$$\sqrt{2x+7} = x+2$$

2x+7 =(x+2)2

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

$$2 + 17 = x^2 + 4x + 4$$

 $6 = \chi^2 + 2\chi - 3$

0 = (x + 3) (x + 5)5. Explain the two methods that you could use to tell if x = 1 a solution to the equation

Graph + Plug in into the equation

6. Solve $x - 3 = \sqrt{4x}$

 $(x-3)^2 = (\sqrt{4x})^2$ $(x=9)^2 = (\sqrt{4x})^2$

x=6x+9=4x

x2-10x+9=0 (x-9)(x-1)=0

Is either solution extraneous?

Explain:_____

Yeah

X=1 $t-3=\sqrt{4(0)}$ $-2=\sqrt{4}$