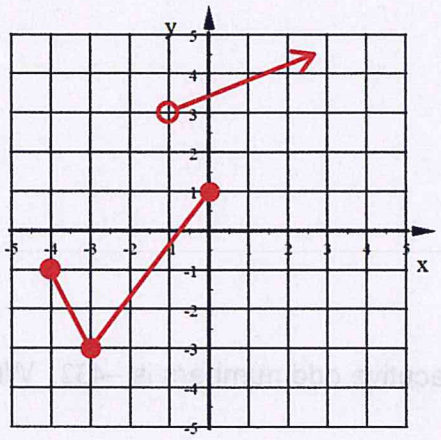
Bellwork Alg 2 Monday, December 17, 2018

1. Solve. $2+\sqrt{3x^2-11}=x^2-3$

2. Find the domain and range of this graph



3. Solve for K in each equation below.

a) $\sqrt[3]{\frac{E-CK}{2}}+R=X$

b) $G=T(K-Q)^2-H$

Bellwork Alg 2 Monday, December 17, 2018

ANSWERS

1. Solve. $2+\sqrt{3x^2-11}=x^2-3$

$-2 \qquad -2$

$\left(\sqrt{3x^2-11}\right)^2=(x^2-5)^2$

$3x^2-11=x^4-10x^2+25$

$-3x^2+11 \qquad -3x^2+11$

$0=x^4-13x^2+36$

$0=(x^2-4)(x^2-9)$

$0=(x\pm2)(x\pm3)$

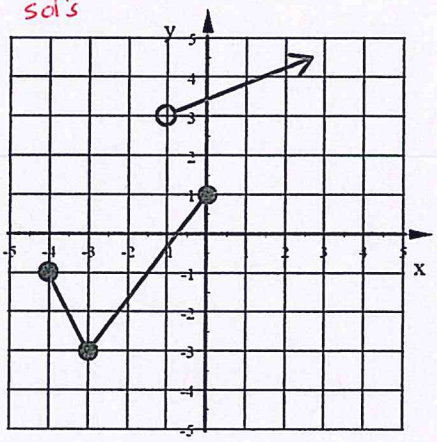
$x=\pm2,\pm3$

extraneous sol's

$x=\pm3$

+36, -9, -4, -13

2. Find the domain and range of this graph



Domain $x\geq -4$ or $[-4,\infty)$

Range $-3\leq y\leq 1$, $y>3$

or $[-3,1]\cup(3,\infty)$

3. Solve for K in each equation below.

a) $\sqrt[3]{\frac{E-CK}{2}}+R=X$

$K=\frac{2(X-R)^3-E}{-C}$

b) $G=T(K-Q)^2-H$

$K=\pm\sqrt{\frac{G+H}{T}}+Q$