Bellwork Alg 2A Tuesday, October 4, 2016

1. Solve for P. State restrictions on the variables. $\frac{AP-T}{P}+M=G$

2. Solve each.

a) $4|3x+8|+1=75$

b) $|3x-5|-4=x+6$

Bellwork Alg 2A Tuesday, October 4, 2016 **Answers**

1. Solve for P. State restrictions on the variables. $\frac{AP-T}{P}+M=G$

$\frac{AP-T}{P}+m=G-m$ $\quad -m \quad -m$

$P\cdot\frac{AP-T}{P}=(G-m)P$

$AP-T=PG-mP-AP$ $\quad -AP \quad -AP$

$-T=PG-mP-AP$

$\frac{-T}{G-m-A}=\frac{(G-m-A)P}{G-m-A}$ FACTOR OUT P

$P=\frac{-T}{G-m-A}$

$P\neq 0,\ G-m-A\neq 0$

2. Solve each.

a) $4|3x+8|+1=75$ $\quad -1 \quad -1$

$\frac{4|3x+8|}{4}=\frac{74}{4}$

$|3x+8|=18.5$

$3x+8=-18.5$ $\quad -8 \quad -8$

$\frac{3x}{3}=\frac{-26.5}{3}$

$3x+8=18.5$ $\quad -8 \quad -8$

$\frac{3x}{3}=\frac{10.5}{3}=3.5$

$x=\frac{-26.5}{3}, 3.5$

b) $|3x-5|-4=x+6$ $\quad +4 \quad +4$

$|3x-5|=x+10$

$3x-5=-(x+10)$

$3x-5=-x-10$ $\quad +x \quad +x$

$4x-5=-10$ $\quad +5 \quad +5$

$4x=-5$

$x=-1.25$

$3x-5=x+10$ $\quad -x \quad -x$

$2x-5=10$ $\quad +5 \quad +5$

$2x=15$

$x=7.5$

$x=-1.25, 7.5$