Bellwork Alg 2 Thursday, August 30, 2018

For each problem solve the equation for the indicated variable. State restrictions on the variables.

1. Solve for G. $\frac{DGR-P}{\sqrt{C-Q}}+T=X$

2. Solve for W. $MQ(B-DW)-J=N$

3. Solve for Q. $\frac{Q}{C}=\frac{E}{R}-Q$

4. Solve for B. $\frac{B-P}{AB+Y}=W$

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1: Solve for G. $\frac{DGR-P}{\sqrt{C-Q}}+T=X$

$-T \quad -T$

$\sqrt{C-Q}\cdot\frac{DGR-P}{\sqrt{C-Q}}=(X-T)(\sqrt{C-Q})$

$DGR-P=(X-T)(\sqrt{C-Q})$

$+P \qquad +P$

$\frac{DGR}{DR}=\frac{(X-T)\sqrt{C-Q}+P}{DR}$

$$G=\frac{(X-T)\sqrt{C-Q}+P}{DR}$$

Restrictions $D,R\neq 0 \quad C-Q>0$

2. Solve for W. $MQ(B-DW)-J=N$

$+J \quad +J$

$\frac{MQ(B-DW)}{MQ}=\frac{N+J}{MQ}$

$B-DW=\frac{N+J}{MQ}$

$-B \qquad -B$

$\frac{-DW}{-D}=\frac{\frac{N+J}{MQ}-B}{-D}$

$$W=\frac{\frac{N+J}{MQ}-B}{-D}$$

Restrictions $M,Q,D\neq 0$

3. Solve for Q. $\frac{Q}{C}=\frac{E}{R}-Q$

$+Q \quad +Q$

$\frac{Q}{C}+Q=\frac{E}{R}$

$\frac{Q\left(\frac{1}{C}+1\right)}{\frac{1}{C}+1}=\frac{\frac{E}{R}}{\frac{1}{C}+1}$

$$Q=\frac{\frac{E}{R}}{\frac{1}{C}+1}$$

Restrictions $C,R\neq 0 \quad \frac{1}{C}+1\neq 0$

4. Solve for B. $\frac{B-P}{AB+Y}=W$

$(AB+Y)\cdot\frac{B-P}{AB+Y}=W(AB+Y)$

$B-P=W(AB+Y)$

$B-P=WAB+WY$

$-WAB \quad -WAB$

$B-WAB-P=WY$

$+P \qquad +P$

$B-WAB=WY+P$

$\frac{B(1-WA)}{1-WA}=\frac{WY+P}{1-WA}$

$$B=\frac{WY+P}{1-WA}$$

Restrictions $AB+Y\neq 0 \quad 1-WA\neq 0$