

Solve this equation for Q .

$$\begin{array}{r}
 AB - QC = W \\
 + QC \quad + QC \\
 \hline
 AB = W + QC \\
 -W \quad -W \\
 \hline
 AB - W = QC \\
 \hline
 \end{array}
 \quad
 Q = \frac{AB - W}{C}$$

Solve this equation for Q .

Below is another way to solve for Q

$$\begin{array}{r}
 AB - QC = W \\
 -AB \quad -AB \\
 \hline
 -QC = W - AB \\
 \hline
 \end{array}
 \quad
 \begin{array}{r}
 -QC = W - AB \\
 -C \quad -C \\
 \hline
 \end{array}$$

$$C = \frac{W - AB}{-C}$$

This answer is equivalent to the previous answer.

Solve this equation for K .

Below are two ways to solve for K . They lead to answers that look different but are actually equivalent (they are variations of each other).

$$\begin{array}{r}
 G(K+E) - X = D \\
 GK + GE - X = D \\
 +X = +X \\
 GK + GE = D + X \\
 -GE = -GE \\
 GK = D + X - GE \\
 G = \frac{D + X - GE}{K} \\
 K = \frac{D + X - GE}{G}
 \end{array}$$

$$\begin{array}{r}
 G(K+E) - X = D \\
 +X \quad +X \\
 \hline
 G(K+E) = D + X \\
 \hline
 K + E = \frac{D + X}{G} \\
 -E \quad -E \\
 \hline
 K = \frac{D + X}{G} - E
 \end{array}$$

Solve this equation for M .

$$\frac{M+H}{R} + Z = J$$

$$\begin{array}{r}
 \frac{M+H}{R} + Z = J \\
 -Z \quad -Z \\
 \hline
 \frac{M+H}{R} = J - Z \\
 \hline
 M+H = (J-Z)R \\
 -H \quad -H \\
 \hline
 M = (J-Z)R - H
 \end{array}$$

$$M = (J - Z)R - H$$

This is only one way to solve for M other steps will lead to answers that look different but are equivalent.

What happens to this equation if you evaluate for $A = 0$?

$$GK - \frac{M+R}{A} = D$$

$\frac{M+R}{A}$ becomes UNDEFINED!

The restriction
in this problem is $A \neq 0$

What happens to this equation if you evaluate for
 $G = 7$ and $H = 11$?

$$W + \sqrt{G-H} = N$$

$$W + \sqrt{7-11} = N$$

$$W + \sqrt{-4} = N$$

$\sqrt{G-H}$ is not a Real number!

Restriction
in this equation
 $G-H \geq 0$

or
 $G \geq H$

Solve for Q .

$$AB - QC = W \quad Q = \frac{W-AB}{-C}$$

State the restrictions on the variables.

$$C \neq 0$$

Solve this equation for K .

$$G(K+E) - X = D$$

$$K = \frac{D+X}{G} - E$$

State the restrictions on the variables.

$$G \neq 0$$