We will use the following values for this example:

$$C = 100 + 0.9Y$$

G = 500 billion

1 = 1,000 billion

M= 600 billion

X= 900 billion

$$NX = 900 - 600 = 300$$

$$AE = C + I + G + NX$$

$$AE = 100 + 0.9Y + 1{,}000 + 500 + 300$$

$$AE = 1{,}900 + 0.9Y$$

We know at equilibrium **AE** = **Y**. To find the equilibrium value of **Y**, we set AE = **Y** and solve for **Y**:

$$Y = 1{,}900 + 0.9Y$$

Rearrange terms:

$$Y - 0.9Y = 1{,}900$$

Factor Y:

$$Y(1 - 0.9) = 1{,}900$$

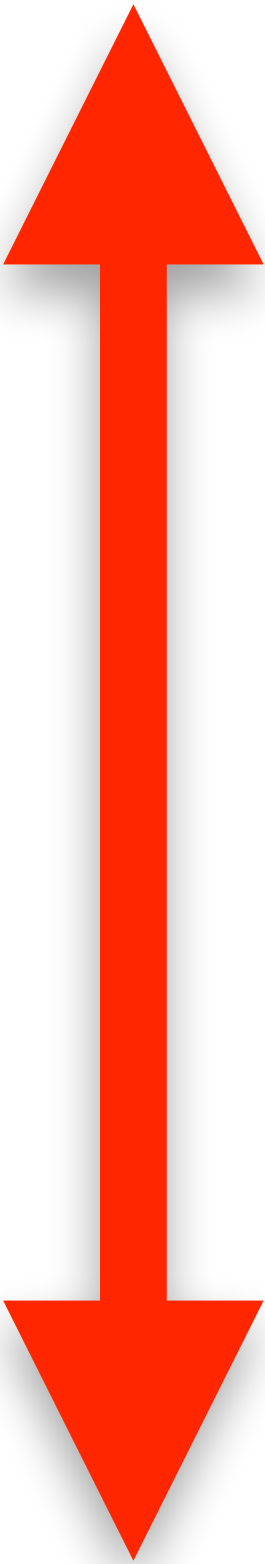
Solve for Y:

$$Y = 1{,}900/(1 - 0.9)$$

$$Y = 1,900/0.1$$

$$Y = 19{,}000$$

This is the equilibrium value of **Y**



$$Y^* = 19{,}000$$

We will use the following values for this example:

$C = 100 + 0.9Y$

$I = 1{,}000$ billion

$G = 500$ billion

$X = 900$ billion

$M = 600$ billion

$NX = 900 - 600 = 300$

$AE = C + I + G + NX$

$AE = 100 + 0.9Y + 1{,}000 + 500 + 300$

$AE = 1{,}900 + 0.9Y$

We know at equilibrium $AE = Y$. To find the equilibrium value of Y, we set $AE = Y$ and solve for Y:

$Y = 1{,}900 + 0.9Y$ Rearrange terms: $Y - 0.9Y = 1{,}900$

Factor Y: $Y(1 - 0.9) = 1{,}900$

Solve for Y: $Y = 1{,}900/(1 - 0.9)$

$Y = 1{,}900/0.1$ $Y^* = 19{,}000$

This is the equilibrium value of Y

Inflationary and Recessionary Gaps