## Aim: Identify properties when solving equations with variables on both sides

Do Now:
Directions: Solve the following equations and state every property that you use.

If $0.02 x+0.7=0.8$, then what is a solution for x ?

1. What is the solution for x in the equation $2(x-3)=1.2-x$ ?
2. What is the solution of $x$ in the equation $5(3 x-2)=15 x-10$ ?
3. What is the solution to the following equation? $2(x-3)=2 x+5$
4. Solve the equation for $d: 0.2(d-6)=0.3 d+5-3+0.1 d$
5. Describe the property used to convert the equation from one line to the next:

$$
\begin{aligned}
& x(1-x)+2 x-4=8 x-24-x^{2} \\
& x-x^{2}+2 x-4=8 x-24-x^{2} \\
& x+2 x-4=8 x-24 \\
& 3 x-4=8 x-24 \\
& 3 x+20=8 x \\
& 20=5 x \\
& x=4
\end{aligned}
$$

Name:
Exit Card:
Directions: Solve the following equations and state every property that you use.

$$
\frac{3}{4}(4 x-8)+5 x=7 x-6
$$

How many solutions are there?

Name:

## Exit Card:

Directions: Solve the following equations and state every property that you use.

$$
\frac{3}{4}(4 x-8)+5 x=7 x-6
$$

