## 6.EE.4: Worksheet

1. Are $12+4 s$ and $4(s+3)$ equivalent expressions?
2. Are $2 x^{2}+x-x$ and $x^{2}+x$ equivalent expressions?
3. Are $8(b-b)$ and 1 equivalent expressions?
4. Of the following expressions, which are equivalent?

$$
\begin{aligned}
& 18+36 y+9 \\
& 9(4 y+4) \\
& 36 y \\
& 36 y+1 \\
& 4(9 y+3)+18 \\
& 18(1+y)+9(1+y)
\end{aligned}
$$

or why not?
7. Of the following expressions, which are equivalent?

$$
\begin{aligned}
& b+1-b+2 b+b \\
& 14 b+2 \\
& 3 b+1 \\
& 2(7 b+1) \\
& b(1+1+1)+1 \\
& 7(2 b+1)
\end{aligned}
$$

8. Show that $x^{2}+2$ and $x \times x+1+1$ are equivalent by plugging in values for $x$.
9. Show that $14 m+16 m, 30 m$, and $2 m(7+8)$ are equivalent by plugging in values for $m$.
10. Expression $\# 1$ gives a value of 4 when we plug in $x=1$. Expression $\# 2$ gives a value of 4 when we plug in $x=1$. Is it possible for these two expressions to be equivalent? Why or why not?
11. Are $v-18$ and $w-18$ equivalent expressions? Why
