Name: $\qquad$
Write a number in every blank to make true equations.

1. $2.3+0.5(3+x)=\ldots x+\ldots$
2. $\frac{8}{6}+\left(\frac{3}{8}+x\right)(2)=\ldots x+\ldots$
3. 

$$
2 y+3 x+5 y+6 x * 4=\_x+\ldots y+\ldots
$$

4. 

a. Circle all the expressions that are equivalent to $7 b+38$.

$$
\begin{array}{cc}
7(b+5)+3 & 7 b+7 \times 8 \\
b+38 & 7 b+(7 \times 5)+3
\end{array}
$$

b. Show that the expressions you circled above are equivalent to $7 b+38$.
5. There is one mistake in the work shown below. Find the mistake. Write the correct result next to where the mistake occurred.

| $P+P+6(3 P+4)+4 P$ | $=2 P+6(3 P+4)+4 P$ |  |
| ---: | :--- | :--- |
|  | $=6(3 P+4)+2 P+4 P$ |  |
|  | $=(3 P+4)+6+2 P+4 P$ |  |
|  | $=(3 P+4)+6+6 P$ |  |

6. Write an expression for the perimeter of this triangle.

7. 

a. A square bathroom tile has a length of $T$. Write an expression for the area of this tile.

b. Use this expression to find the area of the tile if the side length is 9 cm .
8. Write an expression for "add 9 to $A$ then multiply by 2 ." $\qquad$
9. A three digit number has a hundreds digit $S$, tens digit $T$, and ones digit $U$.

| $\boldsymbol{S}$ | $\boldsymbol{T}$ | $\boldsymbol{U}$ |
| :---: | :---: | :---: |
| $\uparrow$ | $\uparrow$ | $\uparrow$ |
| hundreds | tens | ones |
| digit | digit | digit |

Write an expression that gives the value of the number.

