State whether each equation is true or false for the value of the variable given. Show your work to determine your answer.

1. $5 x-8=22$, for $x=6$
2. $4 x^{2}-3(5)=12$, for $x=3$
3. $(8-n)^{2}+13=23$, for $n=3$
4. $17 x-8(2 x-4)=32$, for $x=3$
5. $2 x+12+8 x \geq 32$, for $x=2$
6. $6(3 x-2)+5<50$, for $x=3$

Find the solution set for each equation or inequality using the given replacement set for $x$. Be sure to give all numbers that work to make the statement true. There may be 1 , more than one, or no solutions to each. ** Do your work in the space below the chart.

| Replacement set | equation/inequality | solution set |
| :--- | :--- | :--- |
| $7.1,2,3,4$ | $5 x+2=17$ |  |
| 8. $2,3,4,5$ | $3 x-2>4$ |  |
| $9.1,3,5,7$ | $2 x^{2}+4=54$ |  |
| $10.2,4,6,8$ | $7 x-7<30$ |  |
| $11.3,5,6,9$ | $2(2 x+4) \geq 20$ |  |
| $12.1,2,3,4$ | $5 x-6=24$ |  |

**Work space: Number each problem for \#7-12 and substitute the values to check for solutions

