Solving Equations and Inequalities Name _____

Solve the Following Equations

1. $w-15=35$	2. $42=7p$	3. $7=\frac{x}{4}$

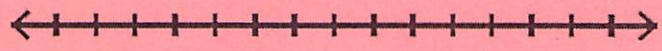
Solve and Check each of the following Equations

4. $2w+5=9$	Check:
5. $\frac{p}{3}+41=44$	Check:
6. $26=8+6x$	Check:

Solve each inequality (if necessary) and graph on the number line.

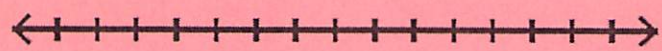
7. $y \leq 9$

8. $-5 > c$



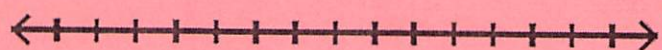
9. $16 + m \geq 20$

10. $65 > 5b$



11. $7x - 4 < 94$

12. $4 + \frac{n}{3} \geq 6$



Solving Equations and Inequalities Name Key

Solve the Following Equations

1. $w-15=35$

$+15 \quad +15$

$w=50$

2. $42=7p$

$\div 7 \quad \div 7$

$6=p$

3. $7=\frac{x}{4}$

$\cdot 4$

$28=x$

Solve and Check each of the following Equations

4. $2w+5=9$

$-5 \quad -5$

$2w=4$

$\div 2 \quad \div 2$

$w=2$

Check:

P: $2w+5=9$

S: $2(2)+5=9$

S: $4+5=9$

$9=9$ ✓

5. $\frac{p}{3}+41=44$

$-41 \quad -41$

$\frac{p}{3}=3 \cdot 3$

$p=9$

Check:

P: $\frac{p}{3}+41=44$

S: $\frac{9}{3}+41=44$

S: $3+41=44$

$44=44$ ✓

6. $26=8+6x$

$-8 \quad -8$

$18=6x$

$\div 6 \quad \div 6$

$3=x$

Check:

P: $26=8+6x$

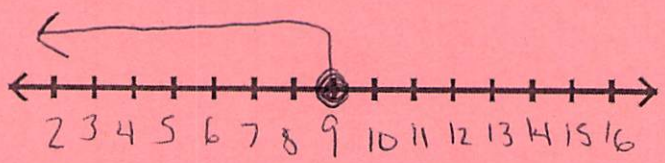
S: $26=8+6(3)$

S: $26=8+18$

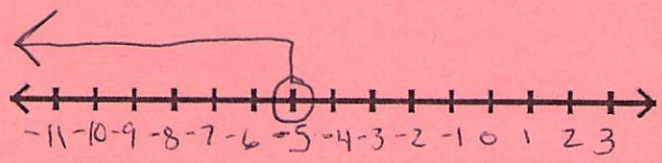
$26=26$ ✓

Solve each inequality (if necessary) and graph on the number line.

7. $y \leq 9$



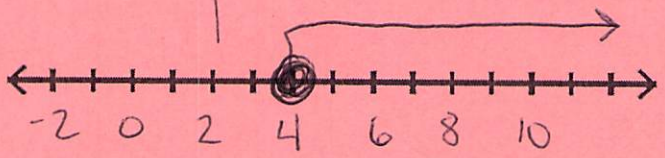
8. $-5 > c$ $\quad c < -5$



9. $16 + m \geq 20$

$-16 \quad -16$

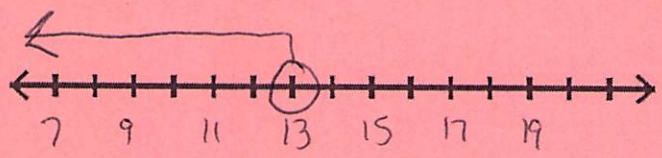
$m \geq 4$



10. $65 > 5b$

$\div 5 \quad \div 5$

$13 > b$ $\quad b < 13$



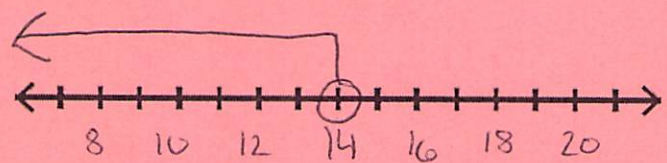
11. $7x - 4 < 94$

$+4 \quad +4$

$7x < 98$

$\div 7 \quad \div 7$

$x < 14$



12. $4 + \frac{n}{3} \geq 6$

$-4 \quad -4$

$3 \cdot \frac{n}{3} \geq 2 \cdot 3$

$n \geq 6$