Examples

1. $7-2n=n-14$

$+2n \quad +2n$

$7=3n-14$

$+14 \quad +14$

$\frac{21}{3}=\frac{3n}{3}$

$\boxed{n=7}$

2. $6-3d=5(2-d)$

$6-3d=10-5d$

$+5d \quad +5d$

$6+2d=10$

$-6 \quad -6$

$\frac{2d}{2}=\frac{4}{2}$

$\boxed{d=2}$

3. $2(4-2r)=-2(r+5)$

$8-4r=-2r-10$

$+4r \quad +4r$

$8=2r-10$

$+10 \quad +10$

$\frac{18}{2}=\frac{2r}{2}$

$\boxed{r=9}$

4. $5(a-2)-3=3a+7+2a$

$5a-10-3=3a+7+2a$

$5a-13=5a+7$

$-5a \quad -5a$

$-13=7$

False Statement →

NO SOLUTION

5. $\frac{1}{3}(24x-15)=8x-5$

$8x-5=8x-5$

$-8x \quad -8x$

$-5=-5$

True Statement →

ALL REAL #'s

Options for Solutions:

- 1 solution: $x=$ ____
- no solution: false statement & variables cancel out
- all real #'s: true statement & variables cancel out