

Write a justification for each step using the axioms of equality.

A.

1. $\frac{1}{5}(a+10) = -3$	Given
2. $5\left[\frac{1}{5}(a+10)\right] = 5(-3)$	
3. $a+10 = -15$	Simplify
4. $a+10-10 = -15-10$	
5. $a = -25$	Simplify

B.

1. $t+6.5 = 3t-1.3$	Given
2. $t+6.5-t = 3t-1.3-t$	
3. $6.5 = 2t-1.3$	Simplify
4. $6.5+1.3 = 2t-1.3+1.3$	
5. $7.8 = 2t$	Simplify
6. $\frac{7.8}{2} = \frac{2t}{2}$	
7. $3.9 = t$	Simplify
8. $t = 3.9$	

C. Find the length of a rectangle if perimeter = $9\frac{1}{2}$ and width = $1\frac{1}{4}$; $P = 2(l+w)$

1. $P = 2(l+w)$	Given
2. $9\frac{1}{2} = 2\left(l+1\frac{1}{4}\right)$	
3. $9\frac{1}{2} = 2l+2\frac{1}{2}$	Distributive Axiom
4. $9\frac{1}{2}-2\frac{1}{2} = 2l+2\frac{1}{2}-2\frac{1}{2}$	
5. $7 = 2l$	Simplify
6. $\frac{7}{2} = \frac{2l}{2}$	
7. $3\frac{1}{2} = l$	Simplify
8. $l = 3\frac{1}{2}$	

