

Using a 2 column proof, Complete the following proof.

- 3) Given $8x - 5 = 2x + 1$
 Prove $x = 1$

Statements	Reasons
a. $8x - 5 = 2x + 1$	a. Given
b. $8x - 5 - 2x = 2x + 1 - 2x$	b. Sub Prop. Eq.
c. $6x - 5 = 1$	c. Combine Like Terms
d. $6x - 5 + 5 = 1 + 5$	d. Addition Property
e. $6x = 6$	e. Comb. Like terms
f. $\frac{6x}{6} = \frac{6}{6}$	f. D.v. Prop. Eq.
g. $x = 1$	g.

- 4) Given $4x + 8 = x + 2$
 Prove $x = -2$

Statements	Reasons
a. $4x + 8 = x + 2$	a.
b. $4x + 8 - x = x + 2 - x$	b.
c. $3x + 8 = 2$	c. Combine Like Terms
d.	d. Subtraction Property
e.	e. Substitution
f. $\frac{3x}{3} = -\frac{6}{3}$	f.
g.	g. Substitution

Using a 2 column proof, Show all steps to Complete the following proof.

5) Given $3k - 2 = 4 - 3k$
Prove $k = 1$

Statement	Reason
1) $\frac{3k-2}{+3k} = \frac{4-3k}{+3k}$	1) Given
2) $\frac{6k-2}{+2} = \frac{4}{+2}$	2) Add. Prop. Eq.
3) $\frac{6k}{6} = \frac{6}{6}$	3) Add. Prop. Eq.
4) $k = 1$	4) Div. Prop. Eq.

6) Given $-k - 3 = 2k - 3 - k$
Prove $k = 0$

Statement	Reason
1) $-k-3 = 2k-3-k$	1) Given.
2) $-k-3 = k-3$	2) Comb. Like terms.
3) $\frac{-3}{+3} = \frac{2k-3}{+3}$	3) Add Prop Eq.
4) $\frac{0}{3} = \frac{2k}{3}$	4) Add prop Eq.
5) $0 = k$	5) Div. Prop Eq.

7) Given $3(3n - 2) = -33$
Prove $n = -3$

Statement	Reason
1) $3(3n-2) = -33$	1) Given
2) $\frac{9n-6}{+6} = \frac{-33}{+6}$	2) Dist. Prop
3) $\frac{9n}{9} = \frac{-27}{9}$	3) Add Prop Eq.
4) $n = -3$	4) Div. Prop. Eq.

8) Given $39 = 3(3 + 3n) + n$
Prove $n = 3$

Statement	Reason
1) $39 = 3(3+3n) + n$	1) Given
2) $39 = 9 + 9n + n$	2) Dist. prop
3) $39 = 9 + 10n$	3) Comb. Lk + ns
4) $\frac{30}{10} = \frac{10n}{10}$	4) Sub. Prop. Eq.
5) $3 = n$	5) Div. Prop. Eq.

9) Given $-5(-8x + 8) = 30 + 5x$
Prove $x = 2$

Statement	Reason

10) Given $-5(5n - 6) - 2 = -7(7n - 4)$
Prove $x = 0$

Statement	Reason