Solve each equation. Write a reason for every step.

1. $4 x=12 x+32$
2. $60 x+153=9 x+51$

3. $-3(x+2)=16-x$

4. $6(x-6)=x(16-7)$

5. $28+12 x=8 x-4$

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4. $-4 x+10=-5 x+18$

5. $-x-2(9-8 x)=12$

6. $\frac{1}{4} x+10=2$

7. $\frac{1}{6} x-4=-6$

8. $\mathrm{x}^{2}+7 \mathrm{x}+12=0$

9. $x^{2}+6=7 x$

10. $\mathrm{x}^{2}=8 \mathrm{x}-12$

11. $8-\frac{1}{7} x=9$

12. $x^{2}+4 x-12=0$

13. $x^{2}-2 x=15$

14. $-x^{2}-6 x=8$

