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**4-37.** Solve each equation for the variable. Check your solutions, if possible.

* 1. 8*a* + *a* − 3 = 6*a* − 2*a* − 3
	2.  + 1 = 6
	3. 4*t* − 2+ *t*2 = 6 + *t*2

**4-38.** The football team scored an incredible 55 points at last night's game. Interestingly, the number of field goals was 1 more than twice the number of touchdowns. The football team earned 7 points for each touchdown and 3 points for each field goal.

**Multiple Choice:** Which system of equations below best represents this situation? Explain your reasoning. Assume that *t* represents the number of touchdowns and *f* represents the number of field goals.

* + 1. *t* = 2*f*  + 1
		7*t* + 3*f* = 55
		2. *f* = 2*t*  + 1
		7*t* + 3*f* = 55
		3. *t* = 2*f*  + 1
		3*t* + 7*f* = 55
		4. *f* = 2*t* + 1
		3*t* + 7*f* = 55

**Then**, solve the system you selected in part (a) and determine how many touchdowns and field goals the Fabulous Footballers earned last night.

**4-40.** Kevin and his little sister, Katy, are trying to solve the system of equations shown below. Kevin thinks the new equation should be 3(6*x* − 1) + 2*y* = 43, while Katy thinks it should be 3*x* + 2(6*x* − 1) = 43. Who is correct and why?



**4-41.**Simplify each expression.

* 1. 50 · 2− 3
	2. 