**Lesson 2.4 Solve Equations with Variables on Each Side Homework**

**Write and solve an equation to solve each exercise.**

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|  | **1. PLUMBING** A1 Plumbing Service charges $35 per hour plus a $25 travel charge for a service call. Good Guys Plumbing Repair charges $40 per hour for a service call with no travel charge. How long must a service call be for the two companies to charge the same amount? |  | **2. EXERCISE** Mike’s Fitness Center charges $30 per month for a membership. All-Day Fitness Club charges $22 per month plus an $80 initiation fee for a membership. After how many months will the total amount paid to the two fitness clubs be the same? |
|  | **3. SHIPPING** The Lone Star Shipping Company charges $14 plus $2 a pound to ship an overnight package. Discount Shipping Company charges $20 plus $1.50 a pound to ship an overnight package. For what weight is the charge the same for the two companies? |  | **4. BACKPACKING** Guido and Raoul each went backpacking in Glacier National Park. The expressions $4(d + 2)-2d$and $3(2 + d) $represent the respective distances Guido and Raoul hiked each day. On what day number *d* will their distance hiking be the same? |

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| **Question 5** | **Question 6** | **Question 7** |
| $$4a - 3(a - 2) = 2(3a - 2)$$ | $$14 - 2(3p + 1) = 6(4 + p)$$ | $$x - (4x - 7) = 5x - (x + 21)$$ |



