Name _____ Date _____

1.3 Practice

For use after Lesson 1.3

move variables first

Solve the equation. Check your solution.

1. $1x + 16 = 9x$

$-1x \quad -1x$

$16 = 8x$

$\frac{16}{8} = \frac{8x}{8}$

$2 = x$

2. $4y - 70 = 12y + 2$

$-4y \quad -4y$

$-70 = 8y + 2$

$-2 \quad -2$

$-72 = 8y$

$\frac{-72}{8} = \frac{8y}{8}$

$-9 = y$

8y + 0

3. $5(p + 6) = 8p$

$5p + 30 = 8p$

$-5p \quad -5p$

$30 = 3p$

$\frac{30}{3} = \frac{3p}{3}$

$10 = p$

4. $3(g - 7) = 2(10 + g)$

$3g - 21 = 20 + 2g$

$-2g \quad -2g$

$g - 21 = 20$

$+21 \quad +21$

$g = 41$

5. $1.8 + 7n = 9.5 - 4n$

6. $\frac{3}{7}w - 11 = -\frac{4}{7}w$

7. One movie club charges a $100 membership fee and $10 for each movie. Another club charges no membership fee but movies cost $15 each. Write and solve an equation to find the number of movies you need to buy for the cost of each movie club to be the same.

#1 $3 - 4x = 7 - 4x$

$+4x \qquad +4x$

$3 \neq 7$

* eliminated the variable x

** (ASK): Is the statement true?

NO! $\neq$

↳ NO solutions

NO solutions

#2 $6x + 4 = 4\left(\frac{3}{2}x + 1\right)$

$6x + 4 = 6x + 4$

$-6x \qquad -6x$

$4 = 4$

infinite solutions

yes, True

infinite solutions

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one solution → $x =$ # something

true = ← infinite solutions

NO solutions → false ≠

} eliminated the variable