Name_____ Date_____ Period_____

LESSON 4-5 · SESSION 2 · PRACTICE · FORM A

Solve for the Whole

Learning target – I can write and solve an equation to find the whole from a part and a percent. · 6.AT.4

REMEMBER

- Write **percent × *w* = part**. Use a decimal: 60% = 0.6.
- **Divide**: *w* = part ÷ decimal.
- Check: percent × *w* = part.

WORKED EXAMPLE

42 points is 35% of a team's total *w*. Find *w*.

Step 1 0.35 × *w* = 42

Step 2 *w* = 42 ÷ 0.35

Step 3 *w* = 120. Check: 0.35 × 120 = 42.

Answer 120 points

WORDS **variable** *(variable)* · **equation** *(ecuación)* · **inverse operation** *(operación inversa)*

PRACTICE

show your work · label units

1. Solve each equation for *w*.

a. 0.4 × *w* = 32 ___

b. 0.75 × *w* = 45 ___

c. 0.25 × *w* = 19 ___

d. 0.5 × *w* = 34 ___

e. 0.9 × *w* = 63 ___

f. 0.2 × *w* = 13 ___

2. **Car Value.** A family's car is worth $18,900 today. That is 70% of the price they paid.

a. Write an equation using *w* for the price paid. _____

b. Solve: *w* = _____

3. **Concert Ticket.** A balcony ticket costs $84. That is 40% of the front-row price. Find the front-row price.

Hint *Divide 84 by 0.4.*

Show your work.

Price_____

4. **Practice Minutes.** Kai practiced 96 minutes. That is 80% of his weekly goal.

a. Goal _____

b. Minutes still needed _____

Show your work.

5. **Fundraiser.** A team raised $312. That is 65% of its goal. Write and solve an equation for the goal.

Hint *Divide the part by 0.65.*

Show your work.

Goal_____

6. **Equation Claim.** A shirt costs $27. It is 75% of the first price. Dev wrote *w* = 0.75 × 27. Is he right? Write and solve the right equation.

Hint *Which number is the part?*

Show your work.

First price_____

7. Monthly Income. A family pays $1,050 in rent each month. That is 35% of their monthly income. Find the income. How much is left after rent? (Use the income for the code.)

Hint *Solve for the income first, then subtract the rent.*

Show your work.

Income, left_____

8. Two Discounts. A jacket sold for $63, which is 70% of its first price. Boots sold for $63, which is 45% of their first price.

a. Write and solve an equation for each first price. _____

b. Which item was discounted more, and by how many dollars? _____

c. Why did the same sale price come from two different first prices?

Show your work.

FIND THE ERROR

explain the mistake, then fix it

9. Sofia's Work. 25% of a whole is $52. Sofia wrote: "$w = 0.25 \times 52 = \$13$." Explain her mistake. Then write and solve the correct equation.

TEST PRACTICE

choose the best answer

10. Which equation finds the whole when 30 is 20% of it?

A $0.2 \times 30 = w$ **B** $0.2 \times w = 30$ **C** $30 \times w = 0.2$ **D** $20 \times w = 30$

11. Solving $45 = 0.75w$ gives $w =$ –

A 33.75 **B** 45.75 **C** 60 **D** 75

SELF-CHECK CODE

find your answer · copy its letter into that problem's box · spell a math word

$480 I	$20.25 Q	$210 I	$33.60 Z	24 V	$36 D	27,000 D	$3,000 E	$13 X

#2b	#3	#4b	#5	#6	#7

CHECK YOURSELF ☐ I can do this on my own ☐ I need a little help ☐ I have a question about #____