Name_____ Date_____ Period_____

**LESSON 4-5 · SESSION 2 · PRACTICE · FORM B**

# 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* = 28 ___

**b.** 0.75 × *w* = 36 ___

**c.** 0.25 × *w* = 17 ___

**d.** 0.5 × *w* = 41 ___

**e.** 0.9 × *w* = 54 ___

**f.** 0.2 × *w* = 11 ___

**2.** **Car Value.** A family's truck is worth $16,800 today. That is 60% 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 $66. That is 40% of the front-row price. Find the front-row price.

**Hint** *Divide 66 by 0.4.*

*Show your work.*

**Price**_____

**4.** **Practice Minutes.** Ayla practiced 72 minutes. That is 80% of her weekly goal.

**a.** Goal _____

**b.** Minutes still needed _____

*Show your work.*

**5.** **Fundraiser.** A team raised $273. 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 $24. It is 75% of the first price. Lucia wrote *w* = 0.75 × 24. Is she right? Write and solve the right equation.

**Hint** *Which number is the part?*

*Show your work.*

**First price**_____

**7. Monthly Income.** A family pays $1,120 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 $72, which is 80% of its first price. Boots sold for $72, 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. Talia's Work.** Talia solved $0.35 \times w = 70$ by writing $w = 0.35 \times 70 = 24.5$. Explain her mistake. Then solve the equation and check.

## TEST PRACTICE

*choose the best answer*

**10.** Which equation finds the whole when 18 is 30% of it?

**A** $0.3 \times 18 = w$ **B** $0.3 \times w = 18$ **C** $18 \times w = 0.3$ **D** $30 \times w = 18$

**11.** Solving $33 = 0.55w$ gives $w =$ –

**A** 18.15 **B** 55 **C** 60 **D** 88

## SELF-CHECK CODE

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

| 18<br>U | $26.40<br>X | $420<br>A | $3,200<br>S | 28,000<br>E | $165<br>Q | $32<br>L | $30<br>Z | $177.45<br>J |
|---|---|---|---|---|---|---|---|---|

| #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 #____