

Lesson 4: Practice Problems

1. Select all the equations that describe each situation and then find the solution.

a. Kiran's backpack weighs 3 pounds less than Clare's backpack. Clare's backpack weighs 14 pounds. How much does Kiran's backpack weigh?

i. $x + 3 = 14$
 $11 + 3 = 14 \checkmark$

~~ii.~~ $3x = 14$

iii. $x = 14 - 3$
 $11 = 11 \checkmark$

~~iv.~~ $x = 14 \div 3$

K = 3 pounds less (-)

C = 14 pounds

$14 - 3 = 11$

b. Each notebook contains 60 sheets of paper. Andre has 5 notebooks. How many sheets of paper do Andre's notebooks contain?

i. $y = 60 \div 5$

ii. $y = 5 \cdot 60$

iii. $\frac{y}{5} = 60$

iv. $5y = 60$

notebook = 60 pages

5 notebooks • 60 pages

300 pages

2. Solve each equation.

A letter next to a number equals multiplication

a. $2x = 5$

$\frac{2 \cdot x}{2} = \frac{5}{2}$ $x = \frac{5}{2}$ or $2\frac{1}{2}$

b. $y + 1.8 = 14.7$

$-1.8 \quad -1.8$
 $y = 12.9$

c. $\frac{2}{3}x = 6 = \frac{1}{2}z \times \frac{2}{1}$

12

★ Do opposite operation to solve

★ Do operation to both sides of equal sign

d. $3\frac{1}{4} = \frac{1}{2} + w$
 $-\frac{1}{2} \quad -\frac{1}{2}$
 $2\frac{3}{4}$

$3\frac{1}{4} \quad \frac{1}{4}$
 $\frac{1}{2} \times 2 \quad \frac{2}{4}$

e. $2.5t = 10$
 $\frac{2.5t}{2.5} = \frac{10}{2.5}$

$t = 4$

$\frac{10}{2.5} = 4$
 $2.5 \overline{) 10.0}$
 -10.0
 0

3. For each equation, draw a tape diagram that represents the equation.

a. $3x = 18$
 $\div 3 \quad \div 3$
 $x = 6$

b. $3 + x = 18$
 $-3 \quad -3$
 $x = 15$

c. $17 - 6 = x$
 $11 = x$

Do opposite operation

★ To check if your answer is right, put your answer back into the problem.

$3 + x = 18 \quad x = 15$

$3 + 15 = 18$
 $18 = 18 \checkmark$

$3x = 18 \quad x = 6$

$3 \cdot 6 = 18$
 $18 = 18 \checkmark$

4. Find each product.

a. $(21.2) \cdot (0.02)$

b. $(2.05) \cdot (0.004)$

5. For a science experiment, students need to find 25% of 60 grams. Jada says, "I can find this by calculating $\frac{1}{4}$ of 60." Andre says, "25% of 60 means $\frac{25}{100} \cdot 60$." Lin says both of their methods work. Do you agree with Lin? Explain your reasoning.