

Quantity Detectives

Use numbers, units, and reasonable checks.

GRADE 5 • 5.MP.2

5.MP.2 "Reason abstractly and quantitatively."

NAME _____

DATE _____

TRACK THE QUANTITIES

Name what each number means and keep its unit. Choose an operation, solve, then check that your answer makes sense in the situation.

WORKED EXAMPLE

A craft table has 8 trays with 14 buttons on each tray. How many buttons are there?

1. $8 \text{ trays} \times 14 \text{ buttons per tray}$

2. $8 \times 14 = 112$

3. The unit is buttons.

Answer: 112 buttons

PRACTICE 5 problems

- 1** A club puts 36 beads into 4 equal bags. How many beads are in each bag?

ANSWER _____

- 2** Noah reads for 15 minutes each day for 5 days. How many minutes does he read?

ANSWER _____

- 3** A recipe uses $\frac{3}{4}$ cup of yogurt for one batch. You make 2 batches. How much yogurt do you use?

ANSWER _____

- 4** A class places 42 stickers equally on 7 pages. How many stickers go on each page?

ANSWER _____

- 5** Mia has \$10.00 and spends \$3.65 at the school store. How much money is left?

ANSWER _____

APPLY IT Show your work

- 1** At an arcade, 18 game cards cost \$27. At the same rate, how much do 30 game cards cost?

WORK SPACE

ANSWER _____

- 2** A game design club has 120 minutes. It uses $\frac{1}{4}$ of the time to plan and $\frac{2}{5}$ of the time to build. How many minutes are left for testing?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A school store has 5 packs of 12 pencils. It sells 17 pencils in the morning and 19 in the afternoon. A student says 24 pencils are left. Is the student correct? Explain with calculations and units.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A club puts 36 beads into 4 equal bags. How many beads are in each bag?	9 beads per bag
2	Noah reads for 15 minutes each day for 5 days. How many minutes does he read?	75 minutes
3	A recipe uses $\frac{3}{4}$ cup of yogurt for one batch. You make 2 batches. How much yogurt do you use?	1 $\frac{1}{2}$ cups
4	A class places 42 stickers equally on 7 pages. How many stickers go on each page?	6 stickers per page
5	Mia has \$10.00 and spends \$3.65 at the school store. How much money is left?	\$6.35

PART 2 • APPLY IT

1. **\$45** Find the cost per card: $\$27 \div 18 = \1.50 . Then multiply $\$1.50 \times 30$.
2. **42 minutes** Planning takes 30 minutes and building takes 48 minutes. Subtract 78 from 120.

CHALLENGE

Yes. $5 \times 12 = 60$ pencils, and $17 + 19 = 36$ pencils sold. $60 - 36 = 24$ pencils left.

Accept equivalent fraction forms for $1 \frac{1}{2}$ cups, such as $\frac{3}{2}$ cups. For the challenge, accept any clear calculation that shows 60 pencils to start, 36 sold, and 24 left.