LESSON MAKER PRO

Measure and Estimate

Find totals and differences in liters, grams, and kilograms.

GRADE 3 · 3.GR.A.3

3.GR.A.3 "Measure and estimate liquid volumes and masses of objects using standard units of liters(l), grams (g), and kilograms (kg)."

NAME _____ DATE _____

ESTIMATE, THEN CALCULATE

Round each measurement to a nearby ten to estimate. Then use the measurements to find the exact answer. Keep the unit in both answers.

WORKED EXAMPLE

Estimate the total mass of the seed packets. Then find the exact total.

SEED PACKETS

Packet	Mass
A	38 g
B	21 g

1. Estimate: 40 g + 20 g = 60 g.
2. Add exactly: 38 g + 21 g = 59 g.

Answer: Estimate: 60 g. Exact total: 59 g.

PRACTICE 4 problems

1 12 l + 23 l. Estimate by tens, then add exactly.

ANSWER _____

2 16 kg + 32 kg. Estimate by tens, then add exactly.

ANSWER _____

3 43 g + 24 g. Estimate by tens, then add exactly.

ANSWER _____

4 71 l - 14 l. Estimate by tens, then subtract exactly.

ANSWER _____

APPLY IT Show your work

1 Two rain barrels hold water for a school garden. Estimate how much water they hold in all, then find the exact amount.

WATER IN THE BARRELS

Barrel	Water
A	18 l
B	33 l

ANSWER _____

2 A pet shelter has food bags with masses of 27 kg and 44 kg. Estimate their total mass, then find the exact mass.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Two buckets hold 46 l and 37 l of water. Estimate their total by rounding each amount to the nearest ten. Find the exact total. Is your estimate higher or lower, and by how much?

WORK SPACE AND ANSWER

ANSWER KEY

Measure and Estimate

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	12 l + 23 l. Estimate by tens, then add exactly.	**Estimate: 30 l. Exact total: 35 l.**
2	16 kg + 32 kg. Estimate by tens, then add exactly.	**Estimate: 50 kg. Exact total: 48 kg.**
3	43 g + 24 g. Estimate by tens, then add exactly.	**Estimate: 60 g. Exact total: 67 g.**
4	71 l - 14 l. Estimate by tens, then subtract exactly.	**Estimate: 60 l. Exact difference: 57 l.**

PART 2 · APPLY IT

1. **Estimate: 50 l. Exact total: 51 l.** Round to 20 l and 30 l for the estimate. Add 18 l and 33 l for the exact total.
2. **Estimate: 70 kg. Exact total: 71 kg.** Round to 30 kg and 40 kg for the estimate. Add 27 kg and 44 kg for the exact total.

CHALLENGE

Estimate: 90 l. Exact total: 83 l. The estimate is 7 l higher.

Accept equivalent wording with the correct units. Estimates use each measurement rounded to the nearest ten.