LESSON MAKER PRO

Estimate Checkpoint

Use rounding to decide whether answers make sense.

GRADE 4 · NY-4.OA.3.b

NY-4.OA.3.b "Assess the reasonableness of answers using mental computation and estimation strategies including rounding."

NAME _____ DATE _____

CHECK WITH AN ESTIMATE

Round numbers to nearby friendly numbers before you calculate exactly. An answer is reasonable if it is close to your estimate, even when it is not exactly the same.

WORKED EXAMPLE

A student says that 92 × 4 is about 360. Is the estimate reasonable?

1. Round 92 to 90.
2. Multiply 90 × 4 = 360.
3. The student's estimate matches the rounded product.

Answer: Yes, 360 is a reasonable estimate.

PRACTICE 6 problems

1 A student adds 193 + 408 and says the sum is about 600. Is the estimate reasonable? Show a rounded estimate.

ANSWER _____

2 A student subtracts 726 - 289 and says the difference is about 650. Is the estimate reasonable? Show a rounded estimate.

ANSWER _____

3 A student says that 84 × 7 is about 560. Is the estimate reasonable? Show a rounded estimate.

ANSWER _____

4 A student estimates that 368 ÷ 9 is about 41. Is the estimate reasonable? Show a rounded estimate.

ANSWER _____

5 A student finds 125 + 6 × 73 and says the value is about 560. Is the estimate reasonable? Show a rounded estimate.

ANSWER _____

6 A student finds 648 ÷ 8 + 37 and says the value is about 120. Is the estimate reasonable? Show a rounded estimate.

ANSWER _____

APPLY IT Show your work

1 At an esports club, 7 tables have 28 players at each table. Then 35 players leave. Jay says about 160 players remain. Is Jay's answer reasonable? Find the exact number of players who remain.

WORK SPACE

ANSWER _____

2 A trading-card club buys 6 packs with 79 cards in each pack. The club makes prize bundles with 8 cards in each bundle. A student estimates that the club can make about 60 full bundles. Is this estimate reasonable? Find the exact number of full bundles and leftover cards.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A science club buys 8 packs of 47 glow sticks. The club sets aside 52 glow sticks, then puts the rest into bags of 9. A student says the club can fill 36 bags. Is this answer reasonable? Explain with an estimate, then find the exact number of full bags.

WORK SPACE AND ANSWER

ANSWER KEY

Estimate Checkpoint

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A student adds 193 + 408 and says the sum is about 600. Is the estimate reasonable? Show a rounded estimate.	**Yes. 200 + 400 = 600.**
2	A student subtracts 726 - 289 and says the difference is about 650. Is the estimate reasonable? Show a rounded estimate.	**No. 700 - 300 = 400, so 650 is not reasonable.**
3	A student says that 84 × 7 is about 560. Is the estimate reasonable? Show a rounded estimate.	**Yes. 80 × 7 = 560.**
4	A student estimates that 368 ÷ 9 is about 41. Is the estimate reasonable? Show a rounded estimate.	**Yes. 360 ÷ 9 = 40, so 41 is a reasonable estimate.**
5	A student finds 125 + 6 × 73 and says the value is about 560. Is the estimate reasonable? Show a rounded estimate.	**Yes. 130 + 6 × 70 = 550, so 560 is reasonable.**
6	A student finds 648 ÷ 8 + 37 and says the value is about 120. Is the estimate reasonable? Show a rounded estimate.	**Yes. 640 ÷ 8 + 40 = 120.**

PART 2 · APPLY IT

1. **Yes. 161 players remain.** Round to estimate 7 × 30 - 40 = 170, so 160 is reasonable. Exactly, 7 × 28 = 196 and 196 - 35 = 161.
2. **Yes. The club can make 59 full bundles with 2 cards left over.** Estimate 6 × 80 = 480, and 480 ÷ 8 = 60, so the estimate is reasonable. Exactly, 6 × 79 = 474 and 474 ÷ 8 = 59 remainder 2.

CHALLENGE

Yes. An estimate is about 35 bags because (8 × 50 - 50) ÷ 10 = 35. Exactly, 8 × 47 = 376, 376 - 52 = 324, and 324 ÷ 9 = 36 full bags.

Accept other sensible rounding choices when they support the same reasonable or not reasonable decision. For division situations, accept equivalent wording for the remainder, but require that it be interpreted as leftover cards.