LESSON MAKER PRO

Divide It Out

Estimate first, then divide with decimals.

GRADE 5 · 5.CE.3.c.iv

5.CE.3.c.iv "Estimate and determine the quotient of two numbers using strategies and algorithms, including the standard algorithm, in which:* no more than one additional zero will need to be annexed."

NAME _____ DATE _____

ESTIMATE AND DIVIDE

Estimate first with nearby numbers that divide evenly. In long division, place the decimal point in the quotient directly above the decimal point in the dividend. If you still have a remainder after using all the digits, annex one zero and continue dividing

WORKED EXAMPLE

Estimate and find 13 / 2.

1. Estimate: 12 / 2 = 6.
2. Divide 13 by 2. Write 6 and leave a remainder of 1.
3. Annex 0, making 10 tenths.
4. Divide 10 tenths by 2. Write 5 tenths.

Answer: Estimate: 6; Quotient: 6.5

PRACTICE 6 problems

1 Estimate using 30 / 6. Then find 32.4 / 6.

ANSWER _____

2 Estimate using 45 / 9. Then find 45 / 9.

ANSWER _____

3 Estimate using 24 / 4. Then find 26 / 4.

ANSWER _____

4 Estimate using 60 / 6. Then find 63.6 / 6.

ANSWER _____

5 Estimate using 7 / 7. Then find 8.4 / 7.

ANSWER _____

6 Estimate using 90 / 5. Then find 93 / 5.

ANSWER _____

APPLY IT Show your work

1 A robotics team earns 57.6 points and shares the points equally among 9 teams. Estimate using 54 / 9. Then find how many points each team gets.

WORK SPACE

ANSWER _____

2 At a game design club, 78 bonus points are shared equally among 4 players. Estimate using 80 / 4. Then find how many bonus points each player gets.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A school store collected $73.50 from selling 7 identical water bottles. Estimate using $70 / 7. Then use standard division to find the price of one bottle.

WORK SPACE AND ANSWER

ANSWER KEY

Divide It Out

GRADE 5 · 5.CE.3.c.iv

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Estimate using 30 / 6. Then find 32.4 / 6.	**Estimate: 5; Quotient: 5.4**
2	Estimate using 45 / 9. Then find 45 / 9.	**Estimate: 5; Quotient: 5**
3	Estimate using 24 / 4. Then find 26 / 4.	**Estimate: 6; Quotient: 6.5**
4	Estimate using 60 / 6. Then find 63.6 / 6.	**Estimate: 10; Quotient: 10.6**
5	Estimate using 7 / 7. Then find 8.4 / 7.	**Estimate: 1; Quotient: 1.2**
6	Estimate using 90 / 5. Then find 93 / 5.	**Estimate: 18; Quotient: 18.6**

PART 2 · APPLY IT

1. **Estimate: 6 points; Exact quotient: 6.4 points per team** Use 54 / 9 to estimate 6. Divide 57.6 by 9 to get 6.4.
2. **Estimate: 20 points; Exact quotient: 19.5 points per player** Use 80 / 4 = 20 to estimate. Divide 78 by 4, annexing one zero after the remainder, to get 19.5.

CHALLENGE

Estimate: $10; Exact price: $10.50 per bottle

Accept reasonable compatible-number estimates close to the listed estimates. Accept $10.5 or $10.50 for the challenge, as both show the same value.