LESSON MAKER PRO

Split and Solve

Use helpful parts and related facts to multiply and divide.

GRADE 5 · 5.NOS.B.7.d

5.NOS.B.7.d "Use properties of operations and/or the inverse relationship between multiplication and division to multiply and divide."

NAME _____ DATE _____

THE BIG IDEA

Break a number into parts to make multiplication easier, then add the partial products. For division, split the number being divided into parts that each divide evenly, or use a related multiplication fact.

WORKED EXAMPLE

Find 78 / 6.

1. Split 78 into 60 + 18.
2. Divide each part: 60 / 6 = 10 and 18 / 6 = 3.
3. Add the results: 10 + 3 = 13.

Answer: 78 / 6 = 13

PRACTICE 6 problems

1 Find 19 x 5. Use a helpful split.

ANSWER _____

2 Find 23 x 4. Use a helpful split.

ANSWER _____

3 Find 36 x 5. Use a helpful split.

ANSWER _____

4 Find 72 / 9. Use a related multiplication fact.

ANSWER _____

5 Find 144 / 9. Use a helpful split or a related fact.

ANSWER _____

6 Find 135 / 5. Use a helpful split or a related fact.

ANSWER _____

APPLY IT Show your work

1 In a game, you earn 28 points for each level you finish. How many points do you earn for finishing 5 levels?

WORK SPACE

ANSWER _____

2 A student sorts 126 video clips equally into 9 playlists. How many clips go in each playlist?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Find 48 x 15 by splitting 15 into 10 and 5. Then write a division equation that checks your answer.

WORK SPACE AND ANSWER

ANSWER KEY

Split and Solve

GRADE 5 · 5.NOS.B.7.d

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find 19 x 5. Use a helpful split.	**95**
2	Find 23 x 4. Use a helpful split.	**92**
3	Find 36 x 5. Use a helpful split.	**180**
4	Find 72 / 9. Use a related multiplication fact.	**8**
5	Find 144 / 9. Use a helpful split or a related fact.	**16**
6	Find 135 / 5. Use a helpful split or a related fact.	**27**

PART 2 · APPLY IT

1. **140 points** Split 28 into 20 + 8, then find (20 x 5) + (8 x 5) = 100 + 40 = 140.
2. **14 clips** Split 126 into 90 + 36, then find (90 / 9) + (36 / 9) = 10 + 4 = 14.

CHALLENGE

48 x 15 = (48 x 10) + (48 x 5) = 480 + 240 = 720; 720 / 15 = 48.

Accept any correct split or related fact. For the challenge, also accept 720 / 48 = 15 as the check.