

Partial-Quotients Division

Home Link 6-4

NAME _____

DATE _____

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Family Note In this lesson students are introduced to the partial-quotients method, in which a number is divided in a series of steps. The quotients for each step (called partial quotients) are added to give the final answer. For example, to divide 96 by 6, students use extended multiplication facts such as $6 * 10 = 60$ to find the partial quotient. Then with the remaining 36, they use an “easy” multiplication fact, $6 * 6$, to finish solving the problem. These two partial quotients are added together, $10 + 6$, to find the exact quotient of 16. So $96 \div 6 = 16$.

Estimate. Write a number model with an unknown to represent the problem. Then solve using partial quotients.



- ① Jordan has 3 Great Dane puppies. At 6 weeks old, their combined weight is 48 pounds. Assuming that they all weigh about the same amount, how much does each puppy weigh?

Estimate: Sample answer: $45 / 3 = 15$

Number model with unknown: $48 \div 3 = p$

Answer: 16 pound(s)

- ② Four sisters love barrettes. They have a value pack that contains 92 barrettes. How many barrettes can each sister have if they share equally?

Estimate: Sample answer: $92 / 4 = 23$

Number model with unknown $92 \div 4 = t$

Answer: 23 barrette(s)

Practice Sample answers given below.

Name two equivalent fractions for each fraction given.

③ $\frac{1}{2}$ $\frac{3}{6}$ $\frac{4}{8}$

④ $\frac{1}{3}$ $\frac{2}{6}$ $\frac{4}{12}$

⑤ $\frac{25}{100}$ $\frac{1}{4}$ $\frac{3}{12}$

⑥ $\frac{6}{8}$ $\frac{3}{4}$ $\frac{9}{12}$