

Homework & Practice 5-2

Mental Math: Estimate Quotients

Another Look!

Estimate $460 \div 9$.

Here are two ways to estimate quotients.



One Way

Use compatible numbers.

What number close to 460 can be easily divided by 9?

Try 450.

$$450 \div 9 = 50$$

$460 \div 9$ is about 50.

Another Way

Use multiplication.

Nine times what number is about 460?

$$9 \times 5 = 45, \text{ so } 9 \times 50 = 450.$$

$460 \div 9$ is about 50.

For **1–20**, estimate each quotient. Show your work.

1. $165 \div 4$

2. $35 \div 4$

3. $715 \div 9$

4. $490 \div 8$

5. $512 \div 5$

6. $652 \div 8$

7. $790 \div 9$

8. $200 \div 7$

9. $311 \div 6$

10. $162 \div 2$

11. $418 \div 6$

12. $554 \div 7$

13. $92 \div 3$

14. $351 \div 7$

15. $497 \div 5$

16. $61 \div 2$

17. $202 \div 2$

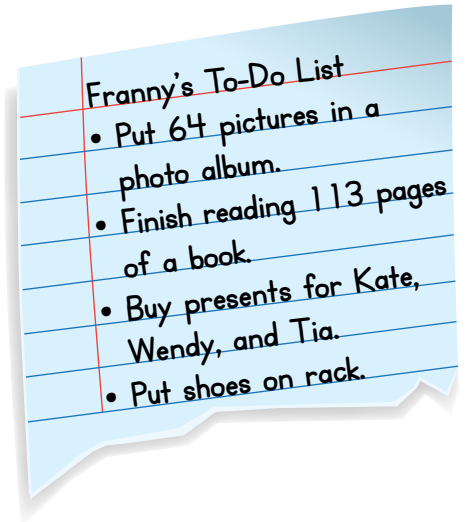
18. $153 \div 3$

19. $98 \div 9$

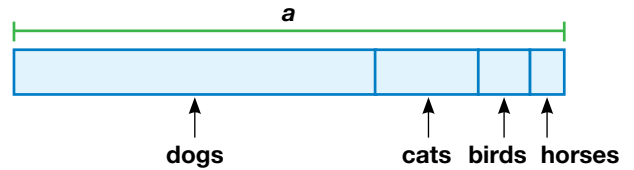
20. $174 \div 9$

For 21–23, use Franny’s To-Do List.

21. Franny has 5 pages left in the album. About how many pictures can she place on each remaining page?
22. Franny plans to spend 4 hours reading. About how many pages would she need to read each hour to finish the book?
23. Franny wants to spend an equal amount of money on the presents for her friends. If she has \$62, about how much money can she spend on each present?



24. **MP.4 Model with Math** The veterinarian has seen 47 dogs, 19 cats, 7 exotic birds, and 3 horses this week. Complete the bar diagram and find the total number of animals seen by the veterinarian this week.



25. Wayne has 303 marbles. If he gives away 123 of the marbles equally to 3 friends, about how many marbles will Wayne give each friend? How many marbles does Wayne have left?
26. **Higher Order Thinking** Tessa wants to separate 187 ears of corn into bags of 6 ears each. She has 35 bags. Estimate to find whether Tessa has enough bags. Explain.

Common Core Assessment

27. Deon set a goal to ride his bicycle 310 miles in a month. He has biked 145 miles so far. If there are 4 days left in the month, about how many miles should Deon ride each day to reach his goal? Explain.