

5th Grade Chapter 4 – Dividing with Two-Digit Divisors**Multiple Choice**

Identify the letter of the choice that best completes the statement or answers the question.

1. The workers at a tree farm are getting ready to plant seedlings in 80 rows. How many balsam fir trees need to be planted in each row?

Type of Tree	Number to Plant
Black spruce	400
Longleaf pine	1,500
Red spruce	600
Balsam fir	2,400

- A. 5 balsam fir trees
B. 30 balsam fir trees
C. 19 balsam fir trees
D. 300 balsam fir trees
2. At the beginning of the school year, 238 children signed up for intramural soccer. Each team must have at least 12 players. What is the greatest number of teams that can be formed?
A. 17 teams
B. 18 teams
C. 19 teams
D. 20 teams
3. During a 50-km race, bottles of water are given out evenly to 67 bikers at checkpoints along the route. If 312 bottles of water were purchased, how many bottles will be left over?
A. 24 bottles
B. 12 bottles
C. 44 bottles
D. 65 bottles
4. A bakery packages donuts in boxes of 12. If 1,236 donuts need to be packaged, how many boxes can be filled?
A. 103 boxes
B. 13 boxes
C. 130 boxes
D. 31 boxes
5. A 100-year old tree is 84 ft tall. If the tree grew at an even rate, how much did it grow each year?
A. 0.84 ft
B. 8.4 ft
C. 84 ft
D. 840 ft

Short Answer

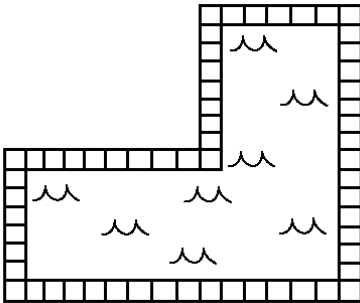
6. Each building has the same number of offices. How many offices are there in each building?

<p style="text-align: center;">Hillside Office Complex</p> <p style="text-align: center;">1,200 Offices in 30 Buildings 2,400 Parking Spaces</p>

7. A charity has a goal of raising \$810,000 at a fund raiser. The cost of each ticket is \$90. Use the equation $810,000 \div 90 = n$ to find n , the number of tickets the charity must sell to reach its goal. How many tickets should the charity sell to meet its goal?

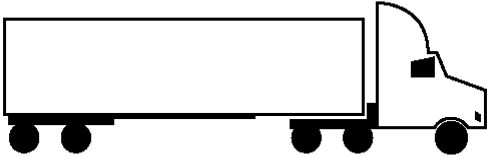
$$810,000 \div 90 = n$$

8. Merrie's swimming pool holds 520 gallons of water. At the end of each summer she can empty the pool at an average rate of 40 gallons per hour. How many hours does it take to empty the pool?



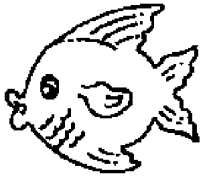
9. A school ordered books for all the students with perfect attendance at the end of the year. They ordered 88 books for 28 students. How many books will be left over when 88 books are divided among 28 students?

10. In a six-month time, a trucking company had 48 drivers take 5,616 trips. If each driver took the same number of trips, how many trips did each driver take?



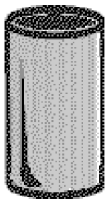
11. In a recent election, 6,272 voters were assigned to 49 different locations to cast their vote. If each location has an equal number of voters, how many people would vote in each?

12. There are 1,232 fish in 14 tanks at the Aquarium. Each tank has the same number of fish. How many fish are in each tank?



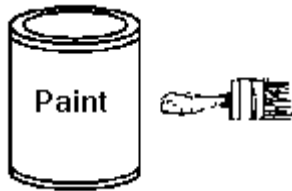
13. If 2,665 people are expected to take part in a marathon, how many rows of 13 people are needed to organize the runners at the start?

14. Andy collected 700 aluminum cans from 14 neighbors. If each neighbor donated the same amount, how many cans did each neighbor donate?



15. How much would a customer save by buying both a gallon of paint and a brush at Mandy's Hardware?

Mandy's Hardware



\$11.85
a gallon

\$5.70

Special price: Buy a gallon of
paint and a brush for \$15.

16. A fundraiser collected \$1,200 for a local children's home. One family donated \$240 and another \$60. The rest of the money came in equal amounts from 30 other people. How much did each of the 30 people donate to the children's home?
17. Mrs. Larue needs to cut 25.5 inches of yarn into 10 equal pieces for her class. How long should she cut each piece of yarn?



18. Lulu's class is drawing a map of the school grounds that is to a scale of 1 to 100. The actual width of the school is 22.45 meters. To find what width to draw the school on the map, the teacher gave the class the following equation. What is the width of the school on the map?

$$22.45 \div 100 = x$$

Name: _____

Form A

Other

19. A rectangular living room has 255 square feet of carpet in it. You know the length of the room is 17 feet. What is the width, in feet? ($area = length \times width$)

Show All Work

Answer _____ feet

On the lines below, explain how you found the width of the room.

Name: _____

Form A

- 20. Coins for a Vending Machine** It was Connie's turn to get the club's drinks from the vending machine. Connie needed to buy five 45-cent drinks from the vending machine. She wanted to take only what she needed in change to the machine. The club had the following coins in the treasury box.

3 – pennies
6 – quarters
5 – dimes
7 – nickels

What coins should Connie use to buy the drinks?

Show All Work

Answer ____ pennies, ____ quarters, ____ dimes, ____ nickels

On the lines below, explain how you got the answer you did and why you used the steps you did to get the answer.

5th Grade Chapter 4 – Dividing with Two-Digit Divisors

Answer Section

MULTIPLE CHOICE

1. ANS: B REF: 0401 Lesson 4-1: Dividing by Multiples of 10
 OBJ: Find the quotients of division problems whose dividends and divisors are multiples of 10, where the division involves a basic fact. STO: N.FL.05.06
 TOP: Intervention G61: Dividing by Multiples of 10, NCTM 3-5: Alg.1.1, NCTM 3-5: Num.3.1, NCTM 3-5: Num.3.2 KEY: division, mental math, number patterns
2. ANS: C REF: 0404 Lesson 4-4: Dividing Whole Numbers by Two-Digit Divisors
 OBJ: Use the standard algorithm to divide three-digit whole numbers by two-digit divisors. STO: N.MR.05.02
 TOP: Intervention G66: Two-Digit Quotients, NCTM 3-5: Num.2.1, NCTM 3-5: Num.2.3, NCTM 3-5: Num.3.2, NCTM 3-5: Num.3.3 KEY: division, whole numbers, sports
3. ANS: C REF: 0404 Lesson 4-4: Dividing Whole Numbers by Two-Digit Divisors
 OBJ: Use the standard algorithm to divide three-digit whole numbers by two-digit divisors. STO: N.MR.05.02
 TOP: Intervention G66: Two-Digit Quotients, NCTM 3-5: Num.2.1, NCTM 3-5: Num.2.3, NCTM 3-5: Num.3.2, NCTM 3-5: Num.3.3 KEY: division, whole numbers, sports
4. ANS: A REF: 0407 Lesson 4-7: Dividing with Zeros in the Quotient
 OBJ: Divide numbers whose quotients include zeros. STO: N.MR.05.02
 TOP: Intervention G67: Dividing Greater Numbers, NCTM 3-5: Num.2.3, NCTM 3-5: Num.3.2, NCTM 3-5: Num.3.3 KEY: division, whole numbers
5. ANS: A REF: 0409 Lesson 4-9: Dividing Decimals by 10, 100, and 1,000
 OBJ: Divide decimal numbers by 10, 100, and 1,000. STO: N.FL.05.16
 TOP: Intervention I24: Dividing Decimals by 10, 100, or 1,000, NCTM 3-5: Alg.1.1
 KEY: division, patterns, decimals

SHORT ANSWER

6. ANS:
 40 offices

 REF: 0401 Lesson 4-1: Dividing by Multiples of 10
 OBJ: Find the quotients of division problems whose dividends and divisors are multiples of 10, where the division involves a basic fact. STO: N.FL.05.06
 TOP: Intervention G61: Dividing by Multiples of 10, NCTM 3-5: Alg.1.1, NCTM 3-5: Num.3.1, NCTM 3-5: Num.3.2 KEY: division, mental math, number patterns
7. ANS:
 9,000 tickets

 REF: 0401 Lesson 4-1: Dividing by Multiples of 10
 OBJ: Find the quotients of division problems whose dividends and divisors are multiples of 10, where the division involves a basic fact. STO: N.FL.05.06
 TOP: Intervention G61: Dividing by Multiples of 10, NCTM 3-5: Alg.1.1, NCTM 3-5: Num.3.1, NCTM 3-5: Num.3.2 KEY: division, mental math, number patterns

8. ANS:
13 hours

REF: 0404 Lesson 4-4: Dividing Whole Numbers by Two-Digit Divisors

OBJ: Use the standard algorithm to divide three-digit whole numbers by two-digit divisors.

STO: N.MR.05.02

TOP: Intervention G66: Two-Digit Quotients, NCTM 3-5: Num.2.1, NCTM 3-5: Num.2.3, NCTM 3-5: Num.3.2, NCTM 3-5: Num.3.3

KEY: division, whole numbers

9. ANS:
4 books

REF: 0404 Lesson 4-4: Dividing Whole Numbers by Two-Digit Divisors

OBJ: Use the standard algorithm to divide three-digit whole numbers by two-digit divisors.

STO: N.MR.05.02

TOP: Intervention G66: Two-Digit Quotients, NCTM 3-5: Num.2.1, NCTM 3-5: Num.2.3, NCTM 3-5: Num.3.2, NCTM 3-5: Num.3.3

KEY: division, whole numbers

10. ANS:
117 trips

REF: 0405 Lesson 4-5: Dividing Larger Numbers

OBJ: Use the standard algorithm to find the quotient of four-digit whole numbers divided by two-digit divisors.

STO: N.MR.05.02

TOP: Intervention G67: Dividing Greater Numbers, NCTM 3-5: Num.2.3, NCTM 3-5: Num.3.1, NCTM 3-5: Num.3.2, NCTM 3-5: Num.3.3

KEY: division, whole numbers

11. ANS:
128 voters

REF: 0405 Lesson 4-5: Dividing Larger Numbers

OBJ: Use the standard algorithm to find the quotient of four-digit whole numbers divided by two-digit divisors.

STO: N.MR.05.02

TOP: Intervention G67: Dividing Greater Numbers, NCTM 3-5: Num.2.3, NCTM 3-5: Num.3.1, NCTM 3-5: Num.3.2, NCTM 3-5: Num.3.3

KEY: division, whole numbers

12. ANS:
88 fish

REF: 0406 Lesson 4-6: Dividing: Choose a Computation Method

OBJ: For a variety of problems, state the computation method to be used and divide using that method.

STO: N.MR.05.05

TOP: Intervention G60: Choose a Computation Method, NCTM 3-5: Num.3.2, NCTM 3-5: Num.3.6

KEY: division, whole numbers, choose a computation method

13. ANS:
205 rows

REF: 0407 Lesson 4-7: Dividing with Zeros in the Quotient

OBJ: Divide numbers whose quotients include zeros. STO: N.MR.05.02

TOP: Intervention G67: Dividing Greater Numbers, NCTM 3-5: Num.2.3, NCTM 3-5: Num.3.2,
NCTM 3-5: Num.3.3

KEY: division, whole numbers, Physical Education

14. ANS:
50 cans

REF: 0407 Lesson 4-7: Dividing with Zeros in the Quotient

OBJ: Divide numbers whose quotients include zeros. STO: N.MR.05.02

TOP: Intervention G67: Dividing Greater Numbers, NCTM 3-5: Num.2.3, NCTM 3-5: Num.3.2,
NCTM 3-5: Num.3.3

KEY: division, whole numbers, Science

15. ANS:
\$2.55

REF: 0408 Lesson 4-8: Problem-Solving Skill: Multiple-Step Problems

OBJ: Solve multiple-step word problems. STO: N.FL.05.20

TOP: Intervention M4: Problem-Solving Skill: Multiple-Step Problems

KEY: problem-solving skill, addition, subtraction, Economics, money

16. ANS:
\$30

REF: 0408 Lesson 4-8: Problem-Solving Skill: Multiple-Step Problems

OBJ: Solve multiple-step word problems. STO: N.FL.05.20

TOP: Intervention M4: Problem-Solving Skill: Multiple-Step Problems

KEY: problem-solving skill, addition, subtraction, division, Economics, money

17. ANS:
2.55 inches

REF: 0409 Lesson 4-9: Dividing Decimals by 10, 100, and 1,000

OBJ: Divide decimal numbers by 10, 100, and 1,000. STO: N.FL.05.16

TOP: Intervention I24: Dividing Decimals by 10, 100, or 1,000, NCTM 3-5: Alg.1.1

KEY: division, patterns, decimals

18. ANS:
0.2245 meters

REF: 0409 Lesson 4-9: Dividing Decimals by 10, 100, and 1,000

OBJ: Divide decimal numbers by 10, 100, and 1,000. STO: N.FL.05.16

TOP: Intervention I24: Dividing Decimals by 10, 100, or 1,000, NCTM 3-5: Alg.1.1

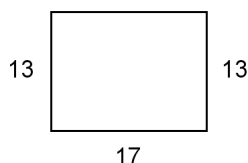
KEY: decimals, division, patterns, Geography, algebra

OTHER

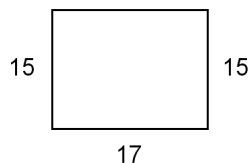
19. ANS:
15

Sample Work:

Try: 17 Check: $17 \times 13 = 221$



Try: 17 Check: $17 \times 15 = 255$



Sample Explanation: I used try, check, and revise. My first try was 13, but the area was smaller than 255. Then I tried 15. That try gave me the correct answer.

RUBRIC	
2 points	The answer is correct AND the explanation is reasonable.
1 point	The answer is correct, but the explanation is not reasonable OR missing.

REF: 0403 Lesson 4-3: Problem-Solving Strategy: Try, Check, and Revise

OBJ: Solve problems using the Try, Check, and Revise strategy.

TOP: Intervention M38: Problem-Solving Strategy: Try, Check, and Revise, NCTM 3-5: Geom.4.5

KEY: problem-solving strategy, 2-point rubric, geometry, writing in math, area

20. ANS:

Sample Answer: 6 quarters, 5 dimes, 5 nickels

Sample Explanation: First, I determined the total amount of money that Connie needed by multiplying \$0.45 by 5, which gave me \$2.25. Next, since quarters were the largest coin I had, I found out how much money in quarters I had which was \$1.50. If I used all the quarters, then I would still need \$0.75. Since dimes were the next largest coin, I found out how much money in dimes I had. Since \$0.50 was less than \$0.75, I used all the dimes. At that point, I had \$0.25 that I needed to get from the nickels and pennies. Since there weren't 5 pennies, I used 5 nickels to get the remaining \$0.25 I needed.

RUBRIC	
4 points	The answer AND the explanation are reasonable.
3 points	The answer is reasonable, but the explanation is missing OR unreasonable.
2 points	The student only found the exact change for one drink AND the explanation was reasonable.
1 point	The student found the exact change but did not limit themselves to the coins that were presented.

REF: 0408 Lesson 4-8: Problem-Solving Skill: Multiple-Step Problems

OBJ: Solve multiple-step word problems. STO: N.FL.05.20

TOP: Intervention M4: Problem-Solving Skill: Multiple-Step Problems

KEY: 4-point rubric, writing in math, money, problem-solving strategy