CRAVEN
COMMUNITY COLLEGE

TABE Math-E

PAXEN

Unit-3 Multiply and Divide Whole Numbers

Lesson 19
DIVISION
(as Equal Sharing)

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Some graphics may not have copied well during the scan process.

Math-E - Lesson 19 – Division

Lesson 19 Division as Equal Sharing

3.OA.2 – Low

Division is the process of separating a quantity into equal parts, or shares.

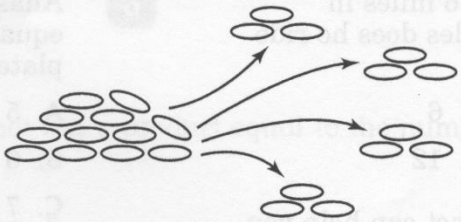
Sometimes the answer to a division problem (the quotient) is the number of shares; sometimes it is the size of each share.

Example **Giorgio has 12 coins. He shares them with 4 friends. How many coins does each person get?**

1) Determine how you will write your division equation. In this case you know how many objects are being shared. You also know how many groups (people) you are sharing them with.

$12 \div 4 = ?$

2) Use a model to divide. Begin with 12 coins and share them equally among 4 groups.



3) The number in each group is 3. Complete the division equation.

$12 \div 4 = 3$

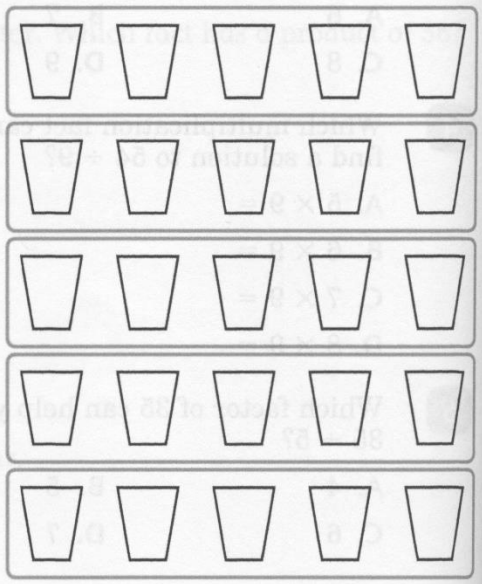
So, each person gets 3 coins.

Example **Samantha has 25 plastic cups. She puts them into equal stacks of 5 cups each. How many stacks of 5 cups does she make?**

1) Determine how you will write your division equation. In this case you know how many objects are being shared and how many are in each group.

$25 \div ? = 5$

2) Use a model to divide. Begin with 25 objects and make groups of 5.



3) Write and solve a division equation that represents your model.

$25 \div 5 = 5$

So, Samantha makes 5 stacks of 5 cups.

Math-E - Lesson 19 – Division

Test Example

1. There are 28 bananas in the store. Each bunch has the same number of bananas. There are 7 bunches. How many bananas are in each bunch?

A. 3 B. 4

C. 21 D. 35

Hint

You can draw a model to represent the problem or use multiplication facts to solve division problems.

1. **B** $28 \div 7 = 4$. There are 4 bananas in each bunch.

Practice

Read each question. Select the correct answer.

1. A client leaves a $24 tip for 3 workers to share. How much money does each worker receive?

A. $6 B. $7

C. $8 D. $9

2. Gerard places 36 cans equally on 4 shelves. How many cans does Gerard place on each shelf?

A. 6 B. 7

C. 8 D. 9

3. Jacqui walks 5 dogs. She has 15 dog treats in her pocket. How many treats does each dog get?

A. 2 B. 3

C. 4 D. 5

4. Danilo earns $100 for 10 hours of work. How much is Danilo paid per hour?

A. $1 B. $10

C. $110 D. $200

5. Rose has 72 minutes to answer 8 questions. How many minutes can she spend on each question?

A. 7 B. 8

C. 9 D. 10

6. There are 21 slices of pizza to be shared equally by 7 people. How many slices of pizza can each person have?

A. 3 B. 4

C. 14 D. 28

7. Henry plants pepper plants in rows of 7. He plants 35 pepper plants. Which expression represents the number of rows of pepper plants?

A. $35 \times 7 = ?$

B. $7 \times 35 = ?$

C. $35 \div ? = 7$

D. $7 \div ? = 35$

8. Beth bought 2 cases of water. She bought a total of 18 bottles of water. If each case has the same number of bottles of water, how many bottles of water are in each case?

A. 36 B. 20

C. 9 D. 6

9. Joey has 4 children. He gives each child the same number of pretzels from a bag. There are 32 pretzels in the bag. How many pretzels does Joey give each child?

A. 7 B. 8

C. 9 D. 10

10. Marcia earns $8 per hour. She earns $56 today. How many hours does Marcia work?

A. 6

B. 7

C. 8

D. 9

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Lesson 19 Division as Equal Sharing

(3.OA.2)

1. C. $24 \div 3 = 8$. Each worker receives $8.
2. D. $36 \div 4 = 9$. Gerard places 9 cans on each shelf.
3. B. $15 \div 5 = 3$. Each dog gets 3 treats.
4. B. $100 \div 10 = 10$. Danilo is paid $10 per hour.
5. C. $72 \div 8 = 9$. Rose can spend 9 minutes on each question.
6. A. $21 \div 7 = 3$. Each person can have 3 slices of pizza.
7. C. 35 objects are shared into equal groups of 7; $35 \div ? = 7$.
8. C. $18 \div 2 = 9$. There are 9 bottles of water in each case.
9. B. $32 \div 4 = 8$. Joey gives each child 8 pretzels.
10. B. $56 \div 8 = 7$. Marcia works 7 hours.

Math-E - Practice 19 – Division

Practice 19 Division as Equal Sharing

3.OA.2 – Low

1. In an algebra textbook, six equal sections make up a 54-page unit. How many pages are in each section?
   A. 6 pages
   B. 8 pages
   C. 9 pages
   D. 60 pages

2. Eight volunteers for the local diabetes association pick up litter along a roadway. The volunteers are responsible for cleaning up 96 yards of roadway. Each volunteer is assigned an equal section to clean up. How many yards of roadway does each volunteer clean up?
   A. 9 yd
   B. 10 yd
   C. 11 yd
   D. 12 yd

3. Members of a charity operate an informational booth for 36 hours. Each volunteer completes one 2-hour shift. How many volunteers are needed?
   A. 12 volunteers
   B. 18 volunteers
   C. 24 volunteers
   D. 36 volunteers

4. A restaurant bill of $78 is split among six friends. How much does each friend pay?
   A. $13
   B. $14
   C. $15
   D. $16

5. A 56-mile trail is split into four equal sections. How long is each section?
   A. 5 mi
   B. 12 mi
   C. 14 mi
   D. 16 mi

6. One season of a television show has eight episodes. Which two could be the total number of minutes in the season and the number of minutes in each episode?
   A. 160-min season, 30-min episodes
   B. 240-min season, 30-min episodes
   C. 360-min season, 30-min episodes
   D. 280-min season, 40-min episodes
   E. 320-min season, 40-min episodes
   F. 410-min season, 40-min episodes

7. An appetizer has 24 pieces of food. Each person at the table gets six pieces. How many people share the appetizer?
   A. 4 people
   B. 6 people
   C. 8 people
   D. 12 people

8. A property owner rents out a 27-floor office building and divides the space equally among three companies. How many floors are rented to each company?
   A. 7 floors
   B. 8 floors
   C. 9 floors
   D. 10 floors

9. A farmer splits 85 pounds of hay equally among five horses. How much hay does each horse get?
   A. 17 lb
   B. 18 lb
   C. 19 lb
   D. 20 lb

10. How many 8-ounce cups can be poured from a 64-ounce pot of coffee?
    A. 6 cups
    B. 8 cups
    C. 12 cups
    D. 14 cups

Math-E - Practice 19 - Division

11 Manuj splits 84 minutes into equal periods of study for four classes. How much time does Manuj spend studying for each class?

A. 16 min
B. 18 min
C. 19 min
D. 21 min

12 Jiao cuts a 108-inch board into nine equal sections. How long is each section?

A. 12 in.
B. 14 in.
C. 16 in.
D. 18 in.

13 Martha divides 52 square feet of her garden into 13 equal sections. How large is each section?

A. 2 ft^2
B. 4 ft^2
C. 6 ft^2
D. 8 ft^2

14 At a berry farm, three people share 42 ounces of blueberries equally. How many ounces of blueberries does each person get?

A. 11 oz
B. 12 oz
C. 13 oz
D. 14 oz

15 The employees at a factory produce 77 metal pieces in seven hours. How many pieces do the employees produce per hour?

A. 11 pieces
B. 12 pieces
C. 13 pieces
D. 14 pieces

16 Kanaye rents a bicycle for five hours and pays $75. How much does it cost to rent the bicycle per hour?

A. $12
B. $15
C. $17
D. $20

17 A software program costs $72 for 12-month access. How much does the software cost per month?

A. $4
B. $5
C. $6
D. $7

18 A 3-D printer uses 80 grams of plastic to print eight wheels for a model. How many grams of plastic are used in one wheel?

A. 8 g
B. 9 g
C. 10 g
D. 11 g

19 Lindsay regularly travels on the same 19-mile route. This week, she drives a total of 76 miles. How many times does Lindsay travel the route?

A. 2 times
B. 4 times
C. 6 times
D. 8 times

20 A 90-mile bicycle race is divided into 10-mile sections. How many sections are in the race?

A. 6 sections
B. 7 sections
C. 8 sections
D. 9 sections

Math-E - Practice 19 – Division

Practice 19 Division as Equal Sharing

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1. C. $54 \div 6 = 9$; Each section has 9 pages.
2. D. $96 \div 8 = 12$; Each volunteer is assigned 12 yards of roadway.
3. B. $36 \div 2 = 18$; There are 18 volunteers needed.
4. A. $78 \div 6 = 13$; Each friend pays \$13.
5. C. $56 \div 4 = 14$; Each section of the trail is 14 miles long.
6. B, E. $240 \div 30 = 8$ and $320 \div 40 = 8$.
7. A. $24 \div 6 = 4$; The appetizer is shared by 4 people.
8. C. $27 \div 3 = 9$; There are 9 floors rented to each company.
9. A. $85 \div 5 = 17$; Each horse gets 17 pounds of hay.
10. B. $64 \div 8 = 8$; There are 8 cups of coffee.
11. D. $84 \div 4 = 21$; Manuj spends 21 minutes studying for each class.
12. A. $108 \div 9 = 12$; Each section is 12 inches long.
13. B. $52 \div 13 = 4$; Each section of the garden is 4 ft^2.
14. D. $42 \div 3 = 14$; Each person gets 14 ounces of blueberries.
15. A. $77 \div 7 = 11$; The employees produce 11 pieces per hour.
16. B. $75 \div 5 = 15$; The bicycle costs \$15 per hour to rent.
17. C. $72 \div 12 = 6$; The software costs \$6 per month.
18. C. $80 \div 8 = 10$; Each wheel uses 10 grams of plastic.
19. B. $76 \div 19 = 4$; Lindsay travels the route 4 times.
20. D. $90 \div 10 = 9$; The race has 9 sections.