FRACTIONS

FRACTIONS

TEACHING TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

Multiple Choice Questions

1. A) 1 liter Explanation: 2/3 of 3 liters is 2 liters, so 3 - 2 = 1 liter remains.

2. A) 5/12Explanation: If you use 7/12 of the roll, the unused fraction is 1 - 7/12 = 5/12.

3. A) 1/3 Explanation: 20 minutes is 1/3 of an hour (20/60 = 1/3).

4. B) 40 Explanation: 5/6 of 48 is (5/6) × 48 = 40, so the answer is 40.

5. D) 3/8 Explanation: Cutting 1/2 of 3/4 leaves 1/4, so 3/4 - 1/2 × 3/4 = 3/8 is left.

6. B) 1/3 Explanation: You have 1/3 cup of the required 2/3 cup, so the fraction you have is 1/3.

ADVANCED LEVEL

More than One Answer Type

7. A), B), C), E) Explanation: 2/5 represents 40% of the whole (A), 2 parts out of 5 (B), it means dividing into 5 equal parts (C), and it can represent walking 2 km out of 5 km (E).

Fill In the Blanks

8. hour Explanation: 15/60 simplifies to 1/4 of the hour.

Matching Type

9. Match the continuous whole scenarios on the left with their corresponding fractions on the right.

1. Walking 3 kilometers of a 12-kilometer trail - D) 1/4

- 2. Drinking 1/4 of a glass of water B) 1/4
- 3. Spending 30 minutes of a 2-hour task A) 1/2

4. Eating 2 slices of a 10-slice pizza – C) 1/5 Explanation: The corresponding fractions match the scenarios .

Answer the Following Questions

10. Answer: 25/60 = 5/12Explanation: You spent 25 minutes, which is 25/60, simplified to 5/12 of the class.

11. Answer: 3/4 Explanation: You used 3 out of 4 equal pieces, so the fraction used is 3/4.

LEARNERS TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

Multiple Choice Questions

1. A) 3/8 Explanation: "3 out of 8 equal parts" is represented by the fraction 3/8.

2. B) 2/3 Explanation: If you had 2/3 of the cake and ate 1/3, you are left with 2/3 of the whole cake.

3. C) 16

Explanation: 4/5 of 20 is calculated by multiplying 20 by 4/5, which equals 16.

4. B) 6/10 Explanation: You ate 6 out of 10 slices, which is represented by the fraction 6/10.

5. A) 7/15Explanation: You have walked 7 kilometers of a 15-kilometer trail, so the fraction is 7/15.

6. B) 25 Explanation: 1/4 of 100 is calculated as 100 ÷ 4 = 25.

ADVANCED LEVEL

More than One Answer Type

7. A) It represents 75% of the whole.

B) It means that 3 out of 4 equal parts of the whole are used or considered.

D) It indicates that the whole is divided into 4 equal parts.

Explanation: 3/4 represents 75% (3 out of 4 parts of a whole), and the whole is divided into 4 equal parts.

Fill In the Blanks

8. numerator

Explanation: In the fraction 3/4, the numerator represents how many parts of the whole are being considered.

Matching Type

9. Match the fraction problems on the left with their correct descriptions on the right.

- 1. 1/2 ----- D. One part out of two equal parts
- 2. 3/4 ----- B. Three parts out of four equal parts
- 3. 2/5 ----- A. One part out of five equal parts
- 4. 5/8 ----- C. Two parts out of eight equal parts

Answer the Following Questions

10. 1/4Explanation: 0.5 liters out of 2 liters is 0.5/2 = 1/4.

11.1/2

Explanation: You have run 21 kilometers out of the 42-kilometer marathon, so the fraction is 21/42, which simplifies to 1/2.

FRACTION OF A COLLECTION

TEACHING TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

Multiple Choice Questions

1. a) 30/50

Explanation: There are 30 cars out of 50 toys, so the fraction is 30/50, which can be simplified.

2. a) 8/24

Explanation: There are 8 girls out of 24 students, so the fraction is 8/24, which simplifies to 1/3.

3. a) 15/45

Explanation: There are 15 oatmeal cookies out of 45, so the fraction is 15/45, which simplifies to 1/3.

4. b) 20/25 "Explanation: If you eat 5 apples, 20 apples are left, so the fraction is 20/25, which simplifies to 4/5.

5. a) 13/52"Explanation: There are 13 hearts out of 52 cards, so the fraction is 13/52, which simplifies to 1/4.

6. a) 24/60 Explanation: There are 24 roses out of 60 plants, so the fraction is 24/60, which

ADVANCED LEVEL

More than One Answer Type

7. A) 8/20
B) 2/5
C) 4/10
Explanation: 8 apples out of 20 is 8/20, which simplifies to 2/5. 8/20 can also be written as 4/10.

Fill In the Blanks

8. The fraction of the books you took is 4/10, which simplifies to 2/5. Explanation: 4 out of 10 books is 4/10, which simplifies to 2/5.

Matching Type

10. Match each description with the correct fraction.

1. Out of 30 pencils, 12 are red. ----- D. 12/30

- 2. There are 40 students in a class, and 15 of them are boys.---- C. 15/40
- 3. In a basket of 25 oranges, 10 are ripe.---- B. 10/25

4. From a collection of 60 stamps, 25 are from foreign countries ---- A. 25/60

Explanation: The fractions are matched based on the number of items in each category.

Answer the Following Questions

11. 15/40

Explanation: There are 15 caramel-filled chocolates out of 40 chocolates, so the fraction is 15/40, which simplifies to 3/8.

12. 18/50

Explanation: There are 18 stamps from foreign countries out of 50 stamps, so the fraction is 18/50, which simplifies to 9/25.

LEARNERS TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

Multiple Choice Questions

1. a) 7/20Explanation: There are 7 ripe oranges out of 20, so the fraction is 7/20.

2. a) 12/30

Explanation: There are 12 dark chocolates out of 30, so the fraction is 12/30, which simplifies to 2/5.

3. a) 10/25

Explanation: There are 10 boys out of 25 students, so the fraction is 10/25, which simplifies to 2/5.

4. a) 15/40

Explanation: There are 15 blue marbles out of 40, so the fraction is 15/40, which simplifies to 3/8.

5. b) 7/12

Explanation: If 5 slices are eaten from a pizza of 12 slices, 7 slices remain. So the fraction left is 7/12.

6. a) 20/50

Explanation: There are 20 fiction books out of 50, so the fraction is 20/50, which simplifies to 2/5.

ADVANCED LEVEL

More than One Answer Type

7. A) 12/30

B) 2/5

D) 4/10

Explanation: 12 girls out of 30 students can be represented as 12/30, which simplifies to 2/5. 12/30 is also equivalent to 4/10.

Fill In the Blanks

8. The fraction of blue marbles is 7/20. Explanation: There are 7 blue marbles out of 20, so the fraction is 7/20.

Matching Type

9. Instructions: Match each example to the corresponding fraction.

- 1. D. 20/50
- 2. B. 9/30
- 3. A. 7/18
- 4. C. 15/36

Explanation: The matching connects each example to the correct fraction based on the numbers given.

Answer the Following Questions

10. 12/30

Explanation: There ares 12 red pencils out of 30, so the fraction is 12/30, which simplifies to 2/5.

11. 10/25

Explanation: There are 10 students wearing glasses out of 25 students, so the fraction is 10/25, which simplifies to 2/5.

FINDING FRACTIONS

TEACHING TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

Multiple Choice Questions

1. a) 10 Explanation: 1/8 of 80 marbles is $80 \div 8 = 10$ marbles.

2. b) 15 Explanation: 3/5 of 25 is 25 × 3/5 = 15.

3. b) 3/8 cup Explanation: 1/2 of 3/4 cup is (1/2) × (3/4) = 3/8 cup.

4. c) 24 Explanation: If 1/2 of 48 flowers are roses, then $48 \times 1/2 = 24$ roses.

5. b) 75 Explanation: 5/12 of 90 students is $90 \times 5/12 = 75$ students.

6. c) 9 Explanation: 1/6 of 54 is 54 ÷ 6 = 9.

ADVANCED LEVEL

More than One Answer Type

7. A) 20, B) 25, D) 24 Explanation: A) 2/5 of 30 = 30 × 2/5 = 12 B) 5/6 of 30 = 30 × 5/6 = 25 C) 7/10 of 30 = 30 × 7/10 = 21 D) 4/5 of 30 = 30 × 4/5 = 24

Fill In the Blanks

8. Multiply 45 by 2/9 to get 10. Explanation: $45 \times 2/9 = 10$ students are in the art club.

Matching Type

9. Match each scenario with the correct fraction calculation.

- 1. A. 20
- 2. B. 28
- 3. C. 6 meters
- 4. D. 10 slices

Explanation: Each scenario is matched with the corresponding fraction calculation.

Answer the Following Questions

10. 9 slices Explanation: 9/30 of the cake means 9 slices are eaten.

11. 70 liters Explanation: 7/8 of 80 liters is 80 × 7/8 = 70 liters used.

LEARNERS TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

Multiple Choice Questions

1. c) 4 Explanation: 1/3 of 12 slices is $12 \times 1/3 = 4$ slices.

2. a) 20 Explanation: 5/8 of 32 is 32 × 5/8 = 20.

3. c) 15 Explanation: 1/4 of 60 liters is 60 × 1/4 = 15 liters.

4. b) 21 Explanation: 3/7 of 49 is 49 × 3/7 = 21.

5. d) 40 Explanation: 2/9 of 180 pages is 180 × 2/9 = 40 pages.

6. a) 36 Explanation: 4/5 of 45 is 45 × 4/5 = 36.

ADVANCED LEVEL

More than One Answer Type

7. A) 10, B) 16, C) 15, D) 20 Explanation: A) 1/4 of 40 = 40 × 1/4 = 10 B) 2/5 of 40 = 40 × 2/5 = 16 C) 3/8 of 40 = 40 × 3/8 = 15 D) 5/12 of 40 = 40 × 5/12 = 20

Fill In the Blanks

8. Multiply 150 by 5/6: 125 Explanation: 150 × 5/6 = 125 pages have been read.

Matching Type

9. Match each problem with its correct solution.

C. 16
 D. 10
 A. 2/9 cup
 B. 4
 Explanation: The matching connects each problem with its correct solution.

Answer the Following Questions 10. 3/4 of 36: $36 \times 3/4 = 27$.

11. 2/5 of 50: 50 × 2/5 = 20.