Mathematics

EOT-2 Exam Coverage – Grade 5 General With Answers

Al Asayel School C2

Exam Pattern

Number of Main Questions عدد الأسئلة الأساسية	Part (1) - 10 Part (2) - 10 Part (3) - 3
Marks per Main Question الدرجات لكل سؤال أساسي	Part (1) - 3 Part (2) - 5 Part (3) - (6-8)
*** Type of All Questions نوع كافة الأسئلة	Part(1 and 2) MCQ Part (3) FRQ
* Maximum Overall Grade *الدرجة القصوى الممكنة	110

****Number of Bonus Questions عدد الأسئلة الإضافية	2
Marks per Bonus Question الدرجات لكل سؤال إضافي	5
Exam Duration - مدة الإمتحان	120 minutes
Mode of Implementation -طريقة التطبيق	SwiftAssess & Paper-Based
Calculator	Not Allowed
الآلة الحاسبة	غير مسموحة

Learning Outcome : Use place-value patterns to divide a decimal by a power of 10

Page No: 5 **Exercise (3 - 8)**

What is the quotient?

3. $91.4 \div 0.1 =$ **914**

4. $55.8 \div 0.01 =$ **5,580**

5. $50.5 \div 0.01 =$ **5,050**

6. $33.2 \div 0.1 =$ **332**

7. $16.4 \div 10 =$ **1.64**

8. $444.8 \div 100 =$ **4.448**

Learning Outcome : Estimate quotients of decimals to determine if calculations are reasonable

Page No: 9 **Exercise (**1-8)

Estimate the quotient.

1. $4.42 \div 0.81 = x$

$40 \div 8 = 5$

2. $36.8 \div 5.7 = d$

$35 \div 5 = 7$

3. $19.73 \div 3.21 = c$

$21 \div 3 = 7$

4. $5.4 \div 0.25 = m$

$54 \div 3 = 18$

Learning Outcome : Estimate quotients of decimals to determine if calculations are reasonable

Page No: 9 **Exercise** 1-8

Which is a reasonable calculated quotient for each expression?

5. $7.78 \div 0.84 = d$

A. 92

B. 9.2

C. 0.92

D. 1.92

6. $23.4 \div 3.2 = s$

A. 7.3

B. 73.3

C. 70.3

D. 780.3

7. $4.2 \div 0.96 = b$

A. 43.75

B. 33.75

C. 4.3

D. 0.43

8. $13.2 \div 7.4 = p$

A. 1.7

B. 10.7

C. 17.2

D. 170.3

Learning Outcome : Use place-value understanding and equivalent representations to divide a decimal by a whole number

Page No: 17 **Exercise 3 – 10**

What is the quotient?

3. $0.24 \div 8 =$ **0.03**

4. $0.63 \div 9 =$ **0.07**

5. $0.96 \div 6 =$ **0.16**

6. $0.84 \div 4 =$ **0.21**

7. $1.26 \div 7 =$ **0.18**

8. $2.25 \div 5 =$ **0.45**

9. $3.18 \div 3 =$ **1.06**

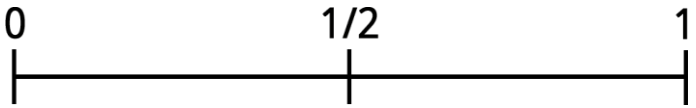
10. $4.52 \div 4 =$ **1.13**

Learning Outcome: Use benchmark numbers to estimate the sums and differences of fractions

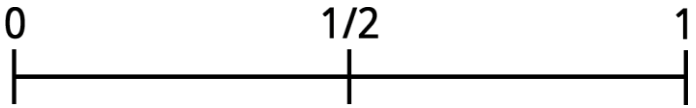
Page No: 39 **Exercise 1 – 4**

Will the sum be greater than 1 or less than ? Use the numer line and explain how you can use benchmark numbers to justify .

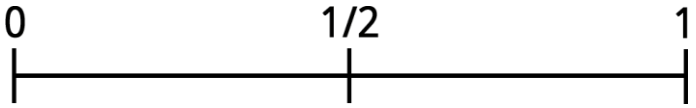
Q1) $\frac{3}{4} + \frac{2}{3}$ **Greater than 1**



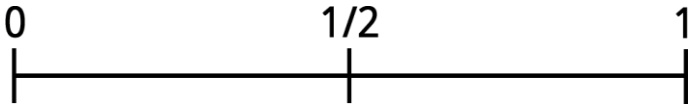
Q2) $\frac{3}{5} + \frac{1}{4}$ **Less than 1**



Q3) $\frac{1}{3} + \frac{5}{8}$ **Less than 1**



Q4) $\frac{3}{10} + \frac{4}{5}$ **Greater than 1**



Learning Outcome: Use benchmark numbers to estimate the sums and differences of fractions

Page No: 41 **Exercise 1 –2**

Without actually calculating . Use what you know about fractions to estimate the sum

1. $\frac{1}{7}+\frac{1}{9}$

Circle the best estimate

a. $\frac{1}{8}$

b. $\frac{1}{4}$

c. $\frac{1}{2}$

d. 2

e. 16

Explain your choice

2. $\frac{5}{6}+\frac{13}{14}$

Circle the best estimate

a. $\frac{1}{2}$

b. 1

c. 2

d. 18

e. 20

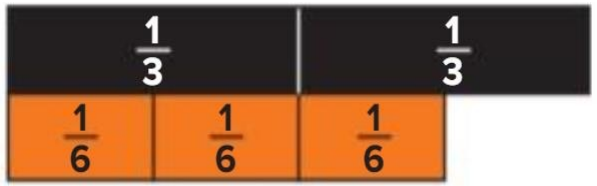
Explain your choice

Learning Outcome: Use a representation to add fractions with unlike denominators

Page No:45 **Exercise 1 – 4**

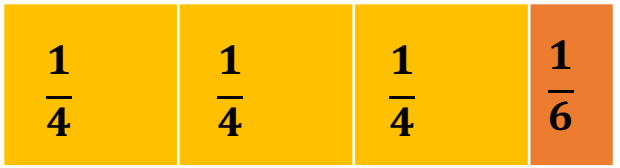
1. $\frac{1}{2} + \frac{3}{10} = \frac{5}{10} + \frac{3}{10}$

2. $\frac{2}{3} + \frac{5}{9} = \frac{6}{9} + \frac{5}{9}$



3. $\frac{5}{8} + \frac{1}{4} = \frac{5}{8} + \frac{2}{8}$

4. $\frac{3}{4} + \frac{1}{6} = \frac{9}{12} + \frac{2}{12}$



Learning Outcome: Explain how to add fractions with unlike denominators (1-4) 49

Page No:49 Exercise 1-4

Which multiple can you use as a like denominator to add the fractions ? Choose all correct answers .

1. $\frac{2}{3} + \frac{3}{4} =$

A. 6
B. 8
C. 12
D. 24

2. $\frac{1}{6} + \frac{3}{8} =$

A. 12
B. 16
C. 24
D. 30

Complete the equation using addends with like denominators.

3. $\frac{3}{5} + \frac{1}{4} = \frac{12}{20} + \frac{5}{20}$

4. $\frac{2}{3} + \frac{1}{6} = \frac{4}{6} + \frac{1}{6}$

Learning Outcome: Use a representation to subtract fractions with unlike denominators

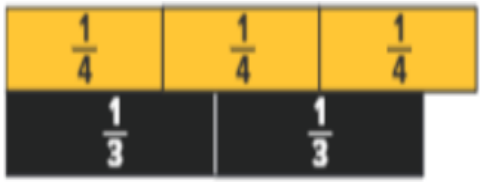
Page No:53 Exercise 1-4

Complete the equation with Equivalent fractions that have like denominators

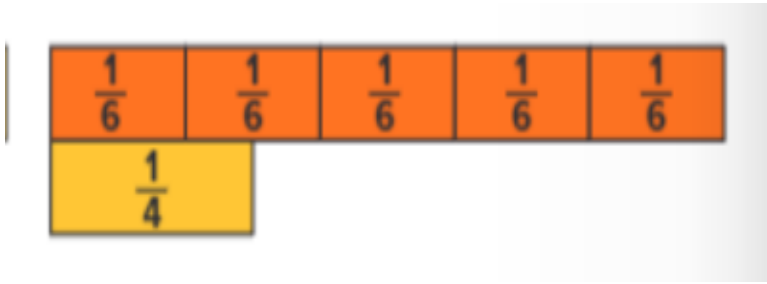
1. $\frac{5}{8} - \frac{1}{2} = \frac{5}{8} - \frac{4}{8}$

2. $\frac{2}{3} - \frac{3}{6} = \frac{4}{6} - \frac{3}{6}$

3. $\frac{3}{4} - \frac{2}{3} = \frac{9}{12} - \frac{8}{12}$



4. $\frac{5}{6} - \frac{1}{4} = \frac{10}{12} - \frac{3}{12}$



Learning Outcome: Use a representation to multiply a whole number by a fraction

Page No:85 **Exercise 1-4**

What is the product ? Use a representation to solve.

1) $\frac{3}{5} \times 4$ $\frac{12}{5}$ *or* $2\frac{2}{5}$

2) $\frac{5}{6} \times 5$ $\frac{25}{6}$ *or* $4\frac{1}{6}$

3) $\frac{2}{5} \times 8$ $\frac{16}{5}$ *or* $3\frac{1}{5}$

4) $\frac{3}{8} \times 7$ $\frac{21}{8}$ *or* $2\frac{5}{8}$

Learning Outcome: Multiply a fraction by a fraction

Page No:99 Exercise 1-4
Page No:100 Exercise 9

Complete the equation.

1. $\frac{1}{5} \times \frac{1}{5} = \frac{1}{5} \times \frac{1}{5} = \frac{1}{25}$

2. $\frac{2}{3} \times \frac{7}{8} = \frac{2}{3} \times \frac{7}{8} = \frac{14}{24}$

3. $\frac{2}{3} \times \frac{4}{9} = \frac{8}{27}$

4. $\frac{3}{7} \times \frac{4}{5} = \frac{12}{35}$

9.Complete the equation.

$\frac{1}{8} \times \frac{1}{3} = \frac{1}{24}$

Learning Outcome: Use an area model to represent multiplication of mixed numbers

Page No:107 Exercise 1-2

Complete the area model what is the product?

Q1) $1\frac{1}{3} \times 1\frac{1}{2}$?

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

$= 1 + \frac{1}{3} + \frac{1}{2} + \frac{1}{6} = 2$

Q2) $1\frac{3}{4} \times 4$

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

$= 4 + 3 = 7$

Learning Outcome: Represent division of decimals by whole numbers using equal sharing or equal grouping

Page No: 13 **Exercise 1 – 8**

What is the quotient? Use decimal grids to solve.

1. $3.5 \div 7 =$ 0.5

2. $4.53 \div 3 =$ 1.51

3. $2.04 \div 4 =$ 0.51

4. $2.8 \div 2 =$ 1.4

5. $3.9 \div 3 =$ 1.3

6. $6.9 \div 3 =$ 2.3

7. $0.72 \div 8 =$ 0.09

8. $2.4 \div 4 =$ 0.6

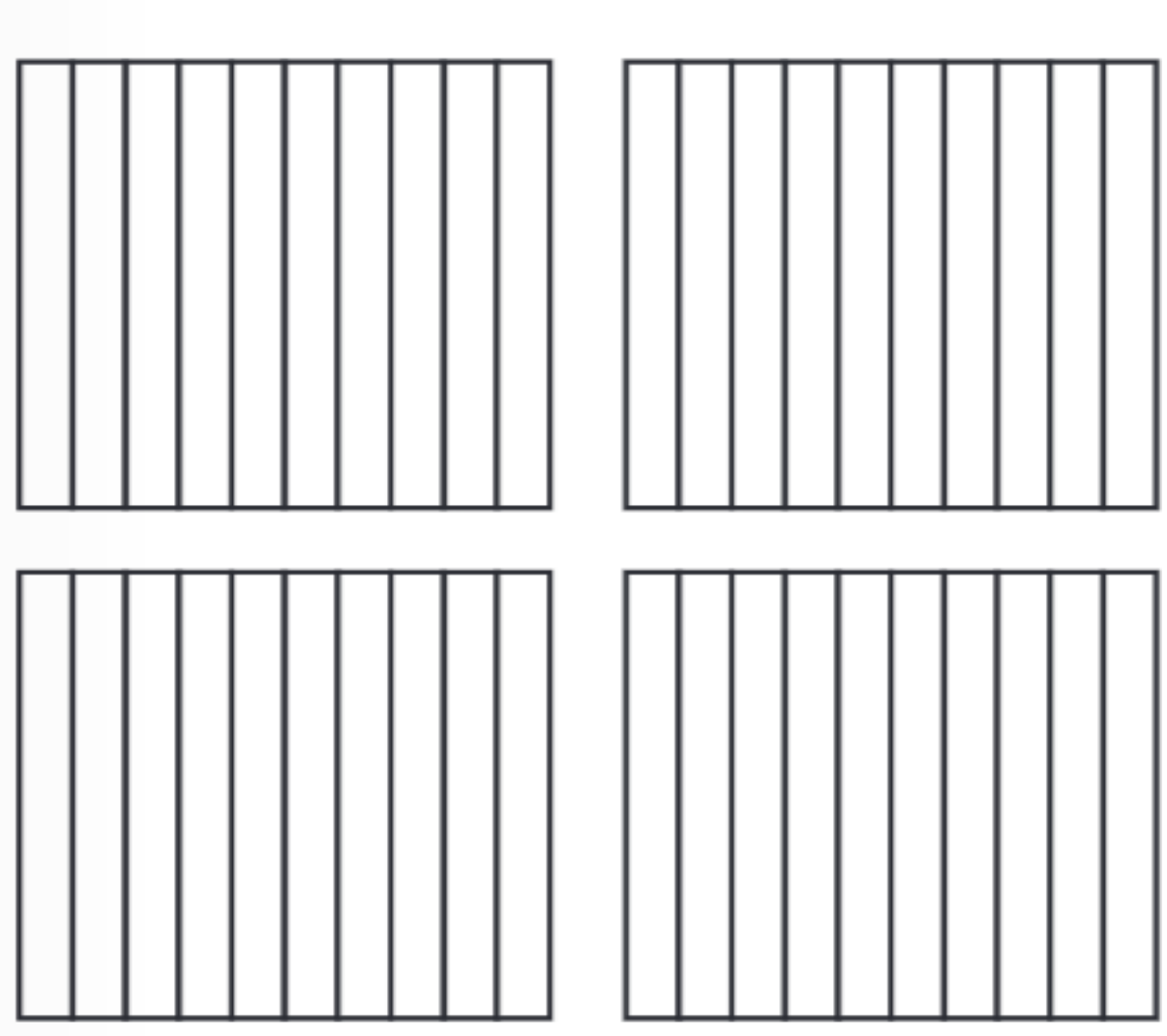
Learning Outcome: Represent division of decimals by whole numbers using equal sharing or equal grouping

Page No: 30 **Exercise 5**

5 . Use the decimals grade to solve

2.4 ÷ 6 = d

0.4



2.4 ÷ 6 = _____

Learning Outcome: Write an equivalent equation containing whole numbers to solve a division equation

Page No: 25 **Exercise 1-4**

Rewrite the equation using multiplication by powers of 10. Then, use partial quotients to solve.

1. $10.8 \div 1.2 =$ 9

$108 \div 12$

2. $5.18 \div 0.74 =$ 7

$518 \div 74$

3. $27.6 \div 4.6 =$ 6

$276 \div 46$

4. $11.2 \div 1.6 =$ 7

$112 \div 16$

Learning Outcome: Write an equivalent equation containing whole numbers to solve a division equation

Page No: 31 Exercise 14

14. Which equivalent expression uses power of 10 to help you solve 52.71 ÷ 0.21 ?

A. 5,271 ÷ 21

B. 5,271 ÷ 0.21

C. 52.71 ÷ 21

D. 52.71 ÷ 2.1

Learning Outcome: Subtract fractions with unlike denominators

Page No: 58 Exercise 10-12

10. Eddie had $\frac{3}{4}$ quart of water for his soccer game . By half time , he drank $\frac{2}{5}$ quart of water . How much water dose Eddie have left?

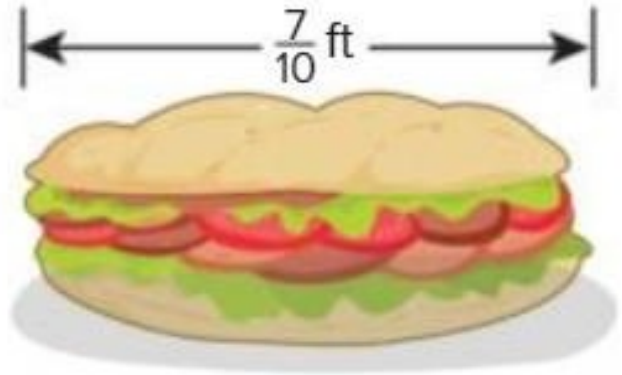
$$\frac{3}{4} - \frac{2}{5} = \frac{15}{20} - \frac{8}{20} = \frac{7}{20} \text{ quarts}$$

Learning Outcome: Subtract fractions with unlike denominators

Page No: 58 Exercise 10-12

11. Isabel bought this sandwich .She ate $\frac{5}{8}$ foot of the sandwich .How much of the sandwich is left .

$$\frac{7}{10} - \frac{5}{8} = \frac{28}{40} - \frac{25}{40} = \frac{3}{40}\ foot$$



12. Alan is walking on a path that is $\frac{11}{12}$ mile long . He has walked $\frac{7}{9}\ mile$ how much farther does he have to walk ?

$$\frac{11}{12} - \frac{7}{9} = \frac{33}{36} - \frac{28}{36} = \frac{5}{36}\ mile$$

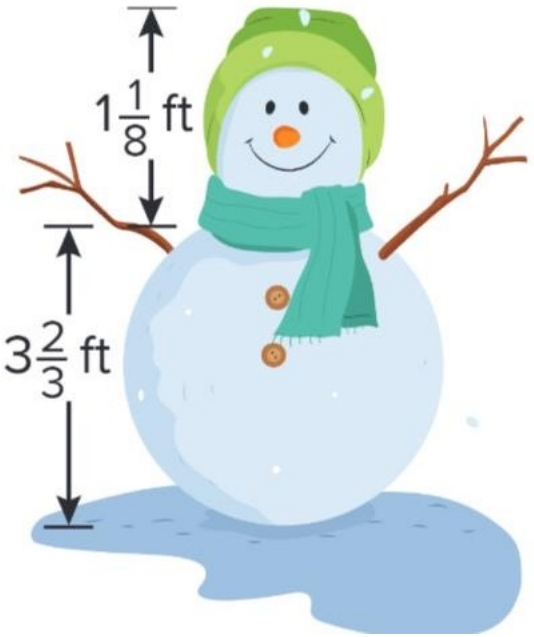
Learning Outcome: Subtract fractions with unlike denominators

Page No: 62 **Exercise 10-12**

10. Timothy rides his bike $1\frac{1}{2}$ miles to school. After school, he rides $2\frac{2}{5}$ miles to his piano lesson, then 2 miles back home. How many miles does Timothy ride in all?

$$1\frac{1}{2} + 2\frac{2}{5} + 2 = 1+2+2+\frac{1}{2} + \frac{2}{5} = 5\frac{9}{10} \text{miles}$$

11. Marcus builds the body of this snowman. He then builds the head. How tall is Marcus's snowman?



$$3\frac{2}{3} + 1\frac{1}{8} = 3 + 1 + \frac{2}{3} + \frac{1}{8} = 4 + \frac{19}{24} = 4\frac{19}{24}\,ft$$

Learning Outcome: Subtract fractions with unlike denominators

Page No: 62 **Exercise 10-12**

12. Solve the equation.

$4\frac{7}{10} + 2\frac{3}{4} = ?$

What do you notice about the sum of the two fractions?

How can you rewrite the sum?

$$\mathbf{4+\frac{7}{10} + 2 + \frac{3}{4} = 6 + \frac{14}{20} + \frac{15}{20} = 6 + \frac{29}{20} = 6 + \frac{20}{20} + \frac{9}{20} = 7\frac{9}{20}}$$

Learning Outcome: Subtract mixed numbers with unlike denominators

Page No:65 **Exercise 1- 8**

What is the difference? Choose the correct answer.

1. $3\frac{2}{3} - 1\frac{1}{5} = ?$

A. $2\frac{7}{15}$

B. $2\frac{1}{5}$

C. $2\frac{1}{15}$

D. $2\frac{1}{3}$

2. $6\frac{7}{8} - 5\frac{5}{6} = ?$

A. $1\frac{5}{24}$

B. $1\frac{1}{24}$

C. $1\frac{4}{24}$

D. $1\frac{2}{24}$

Learning Outcome: Subtract mixed numbers with unlike denominators

Page No:65 **Exercise 1- 8**

What is the difference .

$Q3)\ 4\frac{3}{4} - 1\frac{1}{3}$ $3\frac{5}{12}$

$Q4)\ 2\frac{3}{5} - 1\frac{1}{2}$ $1\frac{1}{10}$

$Q5)\ 5\frac{5}{9} - 3\frac{1}{6}$ $2\frac{7}{18}$

$Q6)\ 3\frac{7}{10} - 1\frac{3}{8}$ $2\frac{13}{40}$

$Q7)\ 6\frac{1}{2} - 3\frac{1}{3}$ $3\frac{1}{6}$

$Q8)\ 4\frac{5}{8} - 3\frac{1}{5}$ $1\frac{17}{40}$

Learning Outcome : Add and subtract mixed numbers with regrouping

Page No:69 **Exercise 1-8**

What is the sum or difference? Choose the correct answer.

1. $5\frac{2}{5} - 3\frac{2}{3} = ?$

   A. $2\frac{11}{15}$

   B. $1\frac{1}{5}$

   C. $2\frac{3}{5}$

   D. $1\frac{11}{15}$

2. $4\frac{5}{6} + 3\frac{3}{4} = ?$

   A. $7\frac{8}{12}$

   B. $7\frac{7}{12}$

   C. $8\frac{7}{12}$

   D. $8\frac{8}{12}$

Learning Outcome : Add and subtract mixed numbers with regrouping

Page No:69 **Exercise 1-8**

What is the sum or difference .

3. $6\frac{1}{8} - 4\frac{1}{3} = 1\frac{19}{24}$

4. $3\frac{3}{4} + 5\frac{2}{3} = 9\frac{5}{12}$

5. $8\frac{1}{6} - 2\frac{2}{9} = 5\frac{17}{18}$

6. $2\frac{7}{8} + 1\frac{1}{2} = 4\frac{3}{8}$

7. $3\frac{1}{5} - 2\frac{3}{4} = \frac{9}{20}$

8. $1\frac{7}{12} + 3\frac{5}{8} = 5\frac{5}{24}$

Learning Outcome: Use a representation to multiply a fraction by a fraction

Page No:95 **Exercise 1-6**

What is the product? Use a representation to solve.

1. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

2. $\frac{5}{6} \times \frac{3}{5} = \frac{15}{30} = \frac{1}{2}$

3. $\frac{5}{8} \times \frac{2}{3} = \frac{10}{24}$

4. $\frac{3}{4} \times \frac{3}{5} = \frac{9}{20}$

5. $\frac{4}{5} \times \frac{5}{6} = \frac{20}{30}$

6. $\frac{7}{8} \times \frac{1}{3} = \frac{7}{24}$

Learning Outcome: Use a representation to multiply a fraction by a fraction

Page No:122 Exercise 14

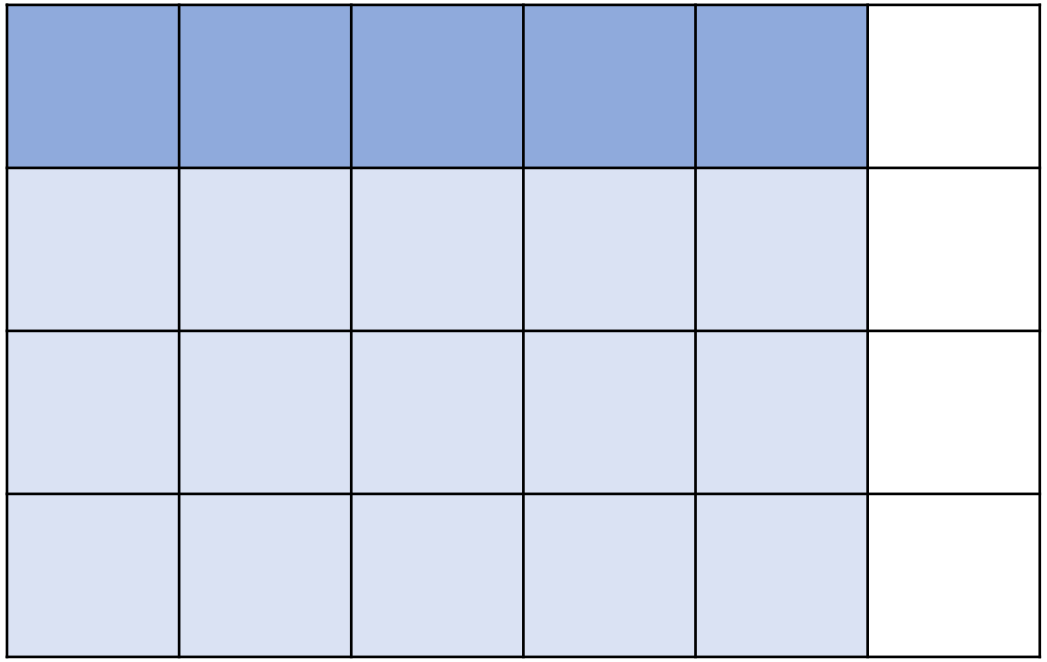
The area model represents what product ?

A. $\frac{1}{4} \times \frac{3}{5}$

B. $\frac{1}{6} \times \frac{3}{4}$

C. $\frac{1}{4} \times \frac{5}{6}$

D. $\frac{4}{5} \times \frac{5}{6}$



Learning Outcome: Find the area of a rectangle with fractional side lengths by multiplying the side lengths

Page No: 103 **Exercise 5-6**

5 . What is the area of a square with side lengths of $\frac{1}{3}$ inch?

$$\frac{1}{3} \times \frac{1}{3} = \frac{1}{9}\ Square\ inch$$

6. A piece of paper is $1\frac{1}{4}$

inches long and 2 inches wide . what is the area of the pices of paper

$$2 \times 1\frac{1}{4} = 2\frac{2}{4}\ or\ 2\frac{1}{2}\ Square\ inches$$

Learning Outcome: Find the area of a rectangle with fractional side lengths by multiplying the side lengths

Page No: 104 **Exercise 7-9**

7. STEM Connection A geologist is surveying land that is $\frac{3}{4}$ mile wide by $\frac{7}{8}$ mile long. What is the area of the land the geologist is surveying?

$$\frac{3}{4} \times \frac{7}{8} = \frac{21}{32} \textit{ Square miles}$$

8. The top of a table measures $1\frac{3}{4}$ feet by 2 feet. What is the area of the tabletop?

$$2 \times 1\frac{3}{4} = 2 + \frac{6}{4} = 2 + \frac{4}{4} + \frac{2}{4} = 3\frac{2}{4} \textit{ or } 3\frac{1}{2} \textit{ Square feet}$$

Learning Outcome: Find the area of a rectangle with fractional side lengths by multiplying the side lengths

Page No: 104 **Exercise 7-9**

9. A farmer plants crops in a section that is $\frac{4}{5}$-mile long by $\frac{9}{10}$-mile wide. What is the area of the section?

$$\frac{4}{5} \times \frac{9}{10} = \frac{36}{50} \text{ or } \frac{18}{25} \text{ Square miles}$$

Learning Outcome: Multiply mixed numbers by writing the mixed numbers as fractions and then multiplying fractions

Page No:111 **Exercise 9-10**

9. The weight of Natalie's backpack is shown. Her brother's backpack weighs $2\frac{1}{4}$ times that much. How much does Natalie's brother's backpack weigh?

$$\mathbf{2\frac{1}{4}\times 6\frac{2}{3} = 12 + \frac{4}{3} + \frac{6}{4} + \frac{2}{12} = 15\ pounds}$$

10. The street Michelle lives on is $1\frac{1}{2}$ miles long. The street Lucas lives on is $1\frac{2}{5}$ times as long as Michelle's street. How long is the street Lucas lives on?

$$\mathbf{1\frac{1}{2}\times 1\frac{2}{5} = 1 + \frac{2}{5} + \frac{1}{2} + \frac{2}{10} = 2\frac{1}{10}\ miles}$$

Learning Outcome: Multiply mixed numbers by writing the mixed numbers as fractions and then multiplying fractions

Page No:112 Exercise 11-12

11. Benson bought this much dog food last week. This week he bought $2\frac{1}{3}$ times as much as last week. How many pounds of dog food did Benson buy this week?

$$2\frac{1}{3}\times 3\frac{1}{2} = 6 + \frac{2}{2} + \frac{3}{3} + \frac{1}{6} = 8\frac{1}{6}\,pounds$$

Learning Outcome: Explain how the size of the factors impacts the size of the product without performing the multiplication

Page No: 115 **Exercise 1-4**

1. Which fraction will result in a product that is greater than $\frac{3}{4}$?

$\frac{3}{4} \times$ _____

A. $\frac{1}{3}$

B. $\frac{1}{2}$

C. $\frac{5}{8}$

D. $\frac{5}{4}$

2. Which fraction will result in a product that is less than $\frac{8}{7}$?

$\frac{8}{7} \times$ _____

A. $\frac{5}{7}$

B. $\frac{12}{6}$

C. $\frac{10}{7}$

D. $\frac{8}{6}$

Learning Outcome: Explain how the size of the factors impacts the size of the product without performing the multiplication

Page No: 115 **Exercise 1-4**

3. Which expression has a product that is less than the first factor? Select all that apply.

A. $42 \times \frac{1}{2}$

B. $35 \times \frac{2}{1}$

C. $78 \times \frac{1}{5}$

D. $26 \times \frac{4}{5}$

4. Which expression has a product that is greater than the second factor? Select all that apply.

A. $\frac{3}{4} \times \frac{2}{1}$

B. $\frac{2}{1} \times 75$

C. $26 \times \frac{3}{2}$

D. $\frac{9}{10} \times 5$

Learning Outcome: Write an equivalent equation containing whole numbers to solve a division equation

Page No:21 **Exercise 5 – 8**

Solve each problem. Then, explain your solution.

5. Darren has a cooler with 9 liters of lemonade. He pours 0.3 liter of lemonade into each glass. How many glasses of lemonade can Darren fill

$$9 \div 0.3 = 90 \div 3 = 30\ glasses$$

6. Mr. Ramirez bought a watermelon that weighs 12 pounds for a picnic. He cuts it into pieces that each weigh 1.5 pounds. How many pieces of watermelon can Mr. Ramirez cut?

$$12 \div 1.5 = 120 \div 15 = 8 \text{ pieces}$$

Learning Outcome: Write an equivalent equation containing whole numbers to solve a division equation

Page No:21 **Exercise 5 – 8**

Solve each problem. Then, explain your solution.

7. A grocery store got a delivery of 24 pounds of almonds. They package the almonds into containers with 0.75 pound of almonds in each. How many containers can they fill with almond ?

$$24 \div 0.75 = 2400 \div 75 = 32$$

8. Melissa has $30 to spend on apples from a local apple orchard. How many pounds of apples can Melissa buy?

$$30 \div 1.25 = 3000 \div 125 = 24$$

Learning Outcome: Write an equivalent equation containing whole numbers to solve a division equation

Page No:22 **Exercise 10**

10. A car drove 104 miles in 1.6 hours. If the speed of the car was the same for the entire trip, how fast did the car go? How do you know?

$$\mathbf{104 \div 1.6 = 1040 \div 16 = 65}$$

Learning Outcome: Add fractions with unlike denominators

Page No: 50 **Exercise 10-12**

10. Oliver uses $\frac{1}{6}$ gallon of water for his outdoor plants. He uses $\frac{1}{4}$ gallon of water for his indoor plants. How many gallons of water does Oliver use on all of his plants?

$$\frac{1}{6}+\frac{1}{4}=\frac{2}{12}+\frac{3}{12}=\frac{5}{12}\,gallons$$

11. Heather uses $\frac{2}{3}$ foot of yarn for her art project. She adds another $\frac{1}{12}$ foot to complete the project. How much yarn does Heather use in all?

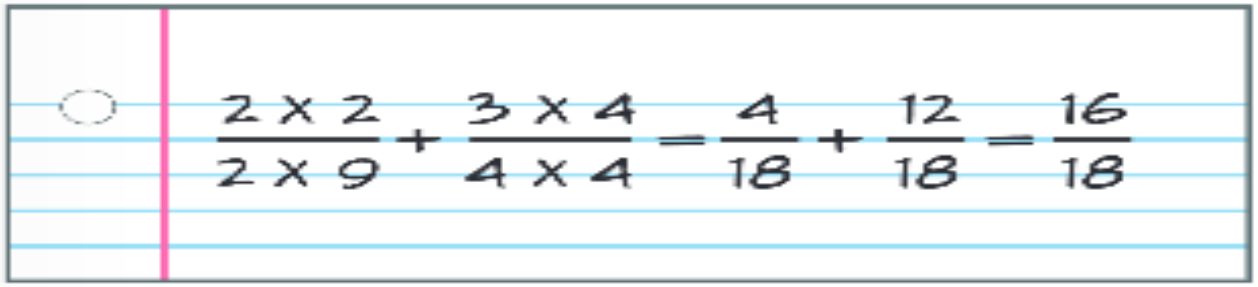
$$\frac{2}{3}+\frac{1}{12}=\frac{8}{12}+\frac{1}{12}=\frac{9}{12}\,or\,\frac{3}{4}\,foot$$

Learning Outcome: Add fractions with unlike denominators

Page No: 50 **Exercise 10-12**

12. Error Analysis Mia found the sum of $\frac{2}{9} + \frac{3}{4}$.

How can you help Mia correct her mistake?



$$\frac{2\times4}{9\times4} + \frac{3\times9}{4\times9} = \frac{8}{36} + \frac{27}{36} = \frac{35}{36}$$

Learning Outcome: Use an area model to find partial products when multiplying mixed numbers

Page No: 107 Exercise 3-6

What is the product ?Use an area model to solve

$Q3$) $1\frac{1}{4} \times 1\frac{1}{5}$

$$1+\frac{1}{4}+\frac{1}{5}+\frac{1}{20}=1\frac{1}{2}$$

$Q4$) $\frac{3}{5} \times 4\frac{1}{2}$

$$\frac{12}{5}+\frac{3}{10}=\frac{24}{10}+\frac{3}{10}=\frac{27}{10}=2\frac{7}{10}$$

$Q5$) $3\frac{1}{3} \times 1\frac{1}{2}$

$$3+\frac{1}{3}+\frac{3}{2}+\frac{1}{6}=5$$

$Q4$) $2\frac{1}{4} \times 2\frac{2}{3}$

$$4+\frac{2}{4}+\frac{4}{3}+\frac{2}{12}=6$$