Rosary School \ Marj Elhamam

Name : …… Date : / 9 / 2025

Subject: Practice worksheet (2) / Unit (1) Grade : 6 ( )

Analysing and displaying data

❖ 1.1 Averages and range + 1.2 More averages and range

Q1: Find the mode of each set of data.

a) 4, 6, 7, 6, 8, 9, 6 _____

b) 10, 12, 14, 12, 15, 10 _____

c) 2, 3, 4, 5, 6 _____

d) 20, 18, 22, 20, 18, 25 _____

e) 7, 8, 7, 9, 10, 7, 11 _____

Q2: A class survey shows the favorite pets of students; the following table shows the result.

	frequency
Cat	11
Dog	14
Fish	6
Bird	9

What is the mode pet? _____

Q3: The number of books borrowed in one week is as following:

5, 7, 8, 7, 9, 7, 6

Find the mode. _____

Q4: A dice was rolled 10 times; the results are shown below:

3, 4, 6, 3, 5, 2, 3, 1, 4, 3

Which number is the mode? _____

Q5: Find the median of each set of data.

a) 4, 6, 8, 10, 12 median = _____

b) 20, 22, 18, 21, 19 median = _____

c) 11, 13, 15, 17, 19 median = _____

d) 2, 4, 6, 8, 10, 12 median = _____

e) 9, 11, 13, 15, 17, 19, 21 median = _____

f) 8, 10, 12, 14, 16, 18, 20, 22 median = _____

Q6: The ages of 9 cousins are:

3, 5, 7, 9, 11, 13, 15, 17, 19

What is the median age? _____

Q7: Five students scores in a math test are as following:

28, 35, 31, 30, 29

What is the median score? _____

Q8: Find the mean of each set of data.

a) 2, 4, 6, 8, 10

mean = _____

b) 12, 14, 16, 18

mean = _____

c) 5, 15, 25, 35, 45

mean = _____

d) 7, 14, 21, 28

mean = _____

e) 3, 6, 9, 12, 15, 18

mean = _____

Q9: A farmer collected eggs for 4 days as following:

12, 15, 14, 19

What is the mean number of eggs collected per day? _____

Q10: Find the range of each set of data.

a) 2, 5, 7, 10, 13

Range = _____

b) 8, 12, 16, 20, 24

Range = _____

c) 4, 9, 11, 15, 6

Range = _____

Q11: Sam recorded the number of apples he ate in 5 days as following:

2, 4, 6, 8, 10

What is the range? _____

Q12: Which of these are discrete and which are continuous?

a) Number of books in a library. _____

b) Weight of a watermelon. _____

c) Number of buses at a station. _____

d) Time taken to finish homework. _____

Q13: The marks of 15 students in a spelling test are recorded as following:

3, 4, 5, 3, 6, 5, 4, 3, 5, 6, 4, 5, 3, 4, 5

Complete the frequency table:

Test mark	Tally	Frequency
3		
4		
5		
6		

What is the mode mark? _____

Q14: The ages of 20 students are:

11, 12, 11, 13, 12, 14, 13, 11, 12, 15, 12, 13, 11, 14, 12, 13, 11, 12, 14, 13

Complete the following grouped frequency table.

Age(year)	Tally	Frequency
11-12		
13-14		
15-16		

❖ 1.3 Two-way tables and bar charts + 1.4 More graphs and tables 1

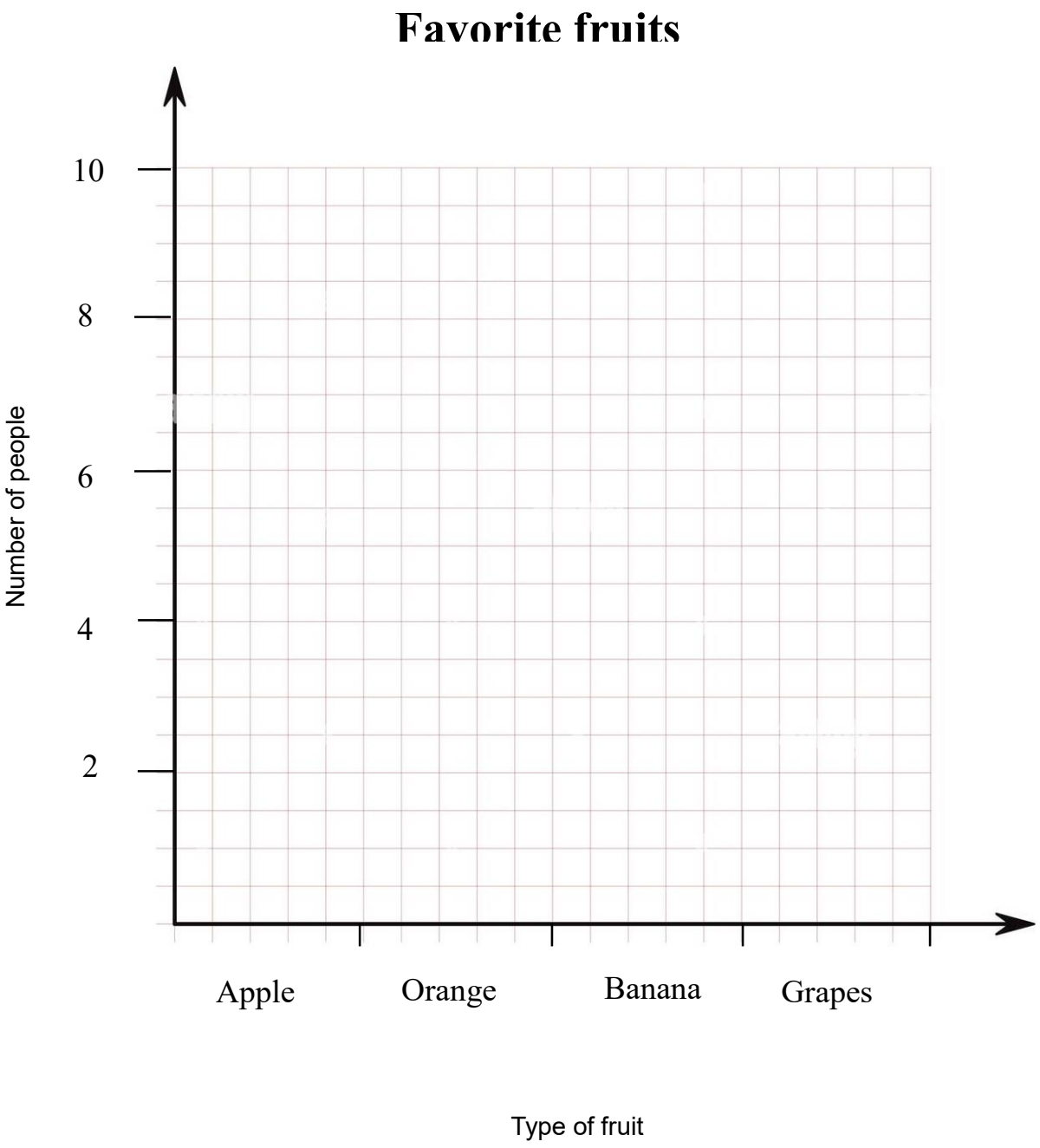
Q1: A survey was conducted about favorite fruits, the following table shows the results

Fruit	Boys	Girls
Apple	7	3
Orange	4	5
banana	3	6
Grapes	2	4

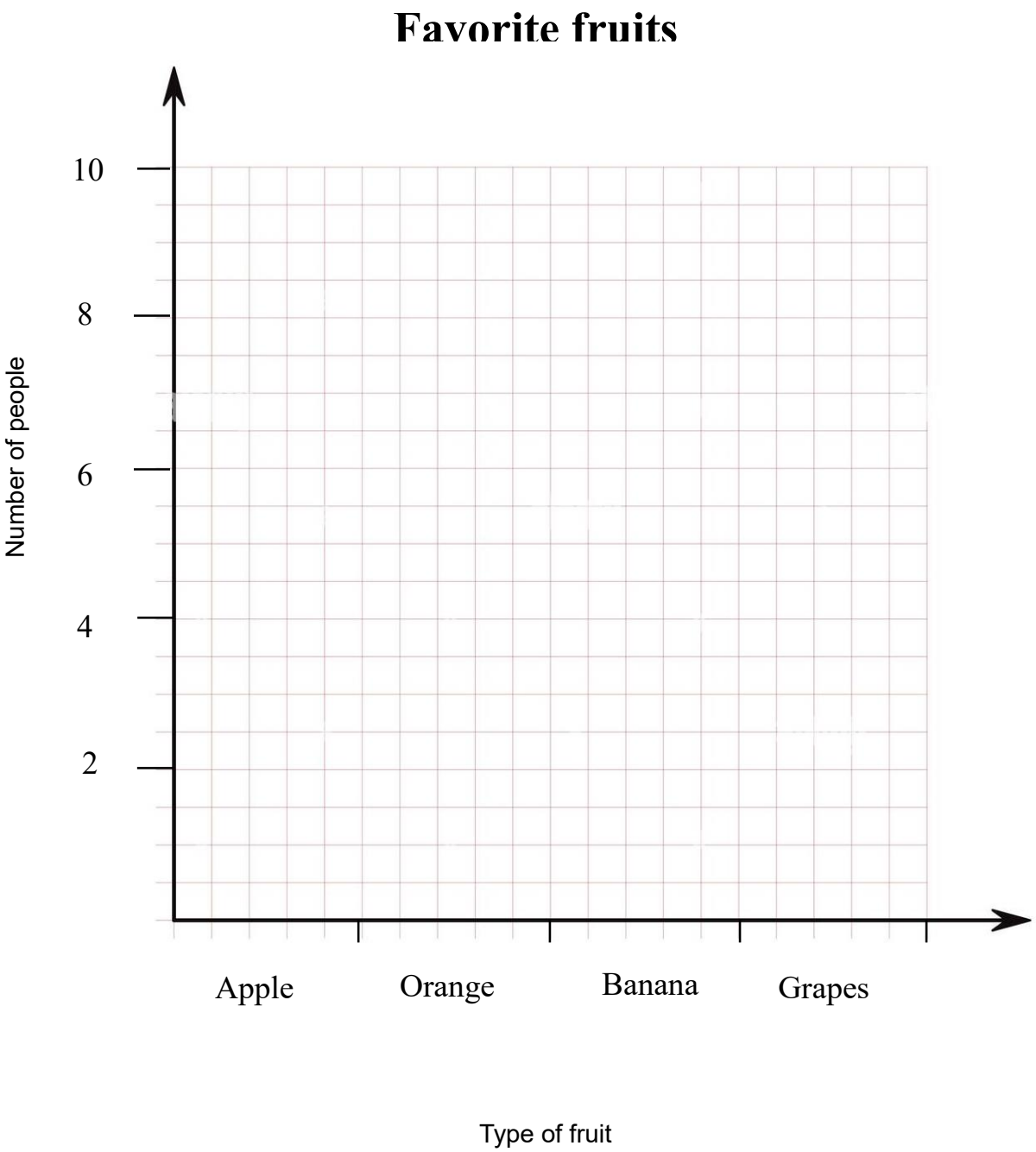
a) Draw a dual bar chart to represent the data.

b) Draw a compound bar chart to represent the data.

a)


Favorite fruits
10
8
6
4
2
Number of people
Apple
Orange
Banana
Grapes
Type of fruit

b)


Favorite fruits
10
8
6
4
2
Number of people
Apple
Orange
Banana
Grapes
Type of fruit

Q2: Students collected old magazines for 4 months

Month	**Grade 5**	**Grade 6**
Jan	20	25
Feb	30	35
Mar	25	30
Apr	35	40

a) In which month did Grade 6 collect the most magazines? _____

b) In which month did Grade 5 collect the fewest? _____

c) How many magazines did Grade 6 collect in total? _____

d) Which month had the fewest magazines overall? _____

e) What is the difference between the totals of Grade 5 and Grade 6?

_____

Q3: Mary recorded the number of times she practiced piano for 5 weeks:

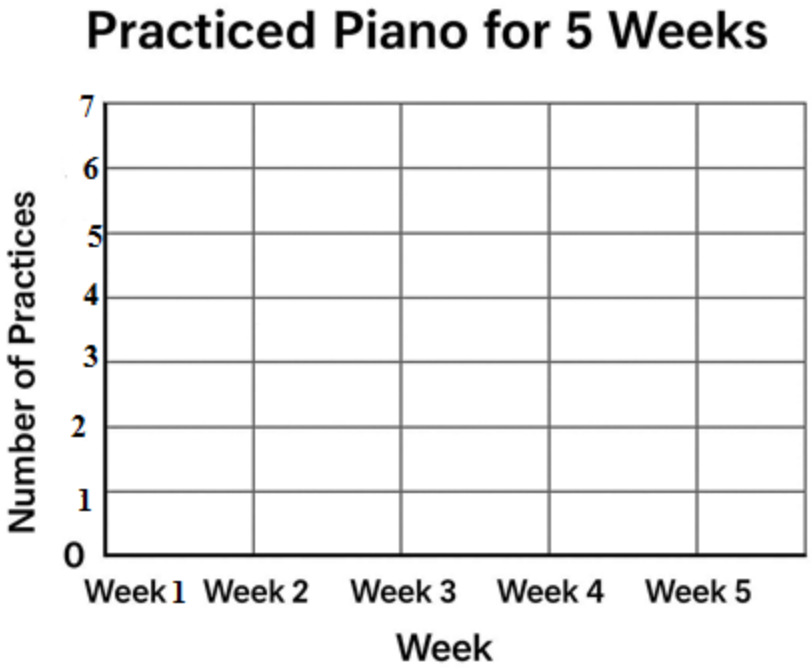
Week	**Number of practices**
Week 1	3
Week 2	5
Week 3	4
Week 4	6
Week 5	7

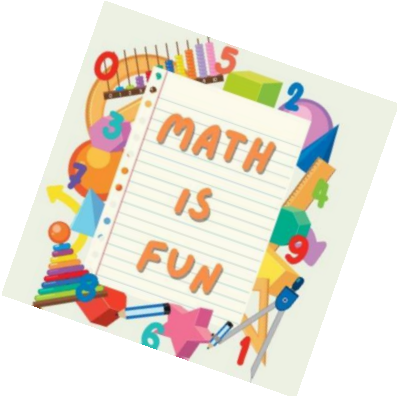
a) How many times did she practice in Week 4? _____

b) In which week did she practice the most? _____

c) In which week did she practice the least? _____

d) Draw a line graph to represent the data





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Name :_____ Date : / 10 / 2025

Subject: Practice worksheet(3) /unit (2) Grade : 6 ( )

2.1 Rules of Divisibility

Q1: Answer the Following questions and explain your answer.

a. Is 248 divisible by 2? _____

b. Is 515 divisible by 5? _____

c. Is 395 divisible by 3? _____

d. Is 811 divisible by 4? _____

e. Is 666 divisible by 9? _____

f. Is 902 divisible by 10? _____

g. Is 72 divisible by 2 and 3? _____

Q2: Write a number divisible by 3, 4 and 5. _____

Q3: Draw a ring around the numbers that are divisible by 9?

63 72 95 108 123

Q4: A box of 185 oranges must be shared equally among 10 students.

Can it be divided evenly?

Q5: A company prints 2,160 flyers. Can they pack them into boxes of 8 without leftovers?

_____

_____

2.2 Factors, Multiples, and Primes

Q1: List all factors of 24. _____

Q2: List all factors of 42. _____

Q3: List the first 5 multiples of 8. _____

Q4: Write all prime numbers between 20 and 50. _____

Q5: Is 91 a prime number? Explain why.

_____

Q6: Work out the **HCF** of 18 and 24.

Q7: Work out the **LCM** of 6 and 9.

Q8: Work out the **HCF** and **LCM** of 10 and 25.

Q9: Leen has 15 red balloons and 25 blue balloons. She wants to pack them equally. What is the

greatest number of packs she can make?

Q10: A bus stops every 12 minutes and a train every 18 minutes. After how many minutes will be the first meeting at the station?

2.3 Positive and Negative Numbers

Q1: Arrange the following numbers in ascending order:

-8 3 -6 0 9 -1

_____, _____, _____, _____, _____, _____

Smallest

Q2: Work out.

a. 8 + –10 = _____

b. –14 – –6 = _____

c. –9 + 11 = _____

d. –6 – 7 = _____

e. 5 – –3 = _____

f. + 2× + 4 = _____

g. – 6 × + 3 = _____

h. + 8 × - 2 = _____

I. – 7× - 5 = _____

J. – 10 × +6 = _____

Q3: Compare: –5 ☐ -2

Q4: Draw a ring around the smallest number:

–2 –8 –12 3 0

Q5: A submarine is 90 m below sea level. It rises by 40 m. What is its new depth?

Q6: The temperature was –6°C and rose by 10°C. What is the new temperature?

Q7: An elevator starts at floor 0, goes down 5 floors, then up 8 floors. What floor is it on?

Q8: A freezer temperature is –15°C. If it increases by 9°C, what is the new temperature?

2.4 Squares and Square Roots

Q1: Work out.

a. 6^2 = _____ b. 0.7^2 = _____

c. $\sqrt[2]{81}$ = _____ d. $\sqrt[2]{64}$ = _____

e. $\sqrt[2]{100} \times \sqrt[2]{25}$ = _____ f. $\sqrt[2]{144}$ = _____

Q2: A square garden has a side length of 15 m. Find its area.

Q3: The area of a square is 49 cm^2. Find the length of one side.

Q4: Estimate: a. $\sqrt[2]{6} \approx$ b. $\sqrt[2]{80} \approx$

2.5 More Powers and Roots.

Work out.

a. $8^2 + 0.3^2 =$ _____

b. $10^2 – 6^2 =$ _____

c. $(5 + 2)^2 =$ _____

d. $\sqrt[3]{64} =$_____

e. $\sqrt[3]{-27} =$ _____

f. $5 \times \sqrt[3]{125} - 15 =$ _____

g. $4 \times \sqrt[3]{8} =$ _____

h. $\frac{\sqrt[2]{81}}{3} - 4 =$ _____

j. $7 \times 2^3 =$_____

I. $\sqrt[3]{216} =$_____

k. $3^3 + 5^3 =$_____

2.6 calculations.

Q1: Write these calculations in ascending order:

$\sqrt{16} + 3$, $\sqrt{25} - \sqrt[3]{8}$, $\sqrt[3]{27} - 3$.

_____, _____, _____

Smallest

Q2: Write these calculations in descending order:

$\sqrt{64} - \sqrt[3]{27}$, $\sqrt{49} + 1$, $\sqrt{36} - 3$.

_____, _____, _____

Largest

Q3: Work out.

a. $4\ (8 - 2)$ = _____

b. $(10 - 5)^2$ = _____

c. $(2 + 3 \times 2)^2$ =_____

d. $(15 \div 3 + 6)^2$ =_____

e. $(-2)^3$ = _____

f. $\sqrt{49} + 3 \times 5$= _____

h. $\sqrt{90 + 2 \times 5}$ =_____

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Rosary School \ Marj Elhamam

Name : …… Date : / 11 / 2025

Subject: Practice worksheet 4/ unit 3 Grade : 6 ( )

Q1) Simplify each expression by combining like terms.

a) $3x + 8x =$ _____

b) $7a - 2a + 5 =$ _____

c) $10y + 4 - 6y =$ _____

d) $5m + 2n + 3m - n =$ _____

e) $5x \times 3x =$ _____

f) $8a \times 2b =$ _____

g) $12y \div 4 =$ _____

h) $9m \times 6m =$ _____

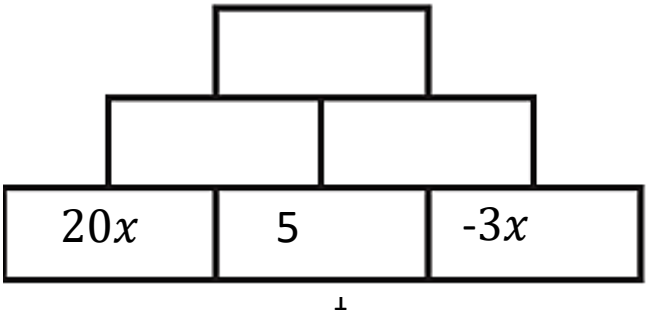
i) $8a + 5b + 2a - 3b =$ _____

j) $6a + 15 - 4a + 5 =$ _____

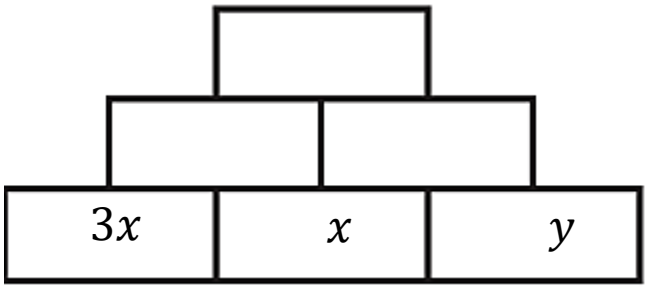
k) $9y - 2 + 4y + 8 =$ _____

l) $3x \times 7x =$ _____

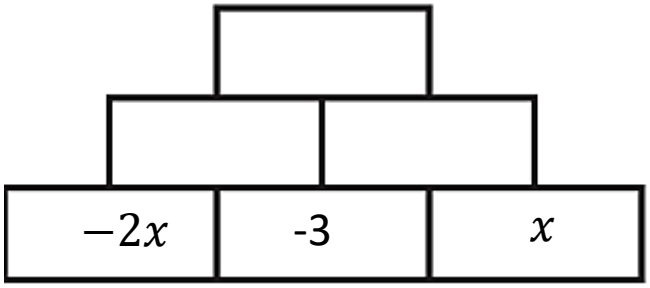
Q2) Complete this addition pyramid**.**



Q3) a) Complete this multiplication pyramid**.**

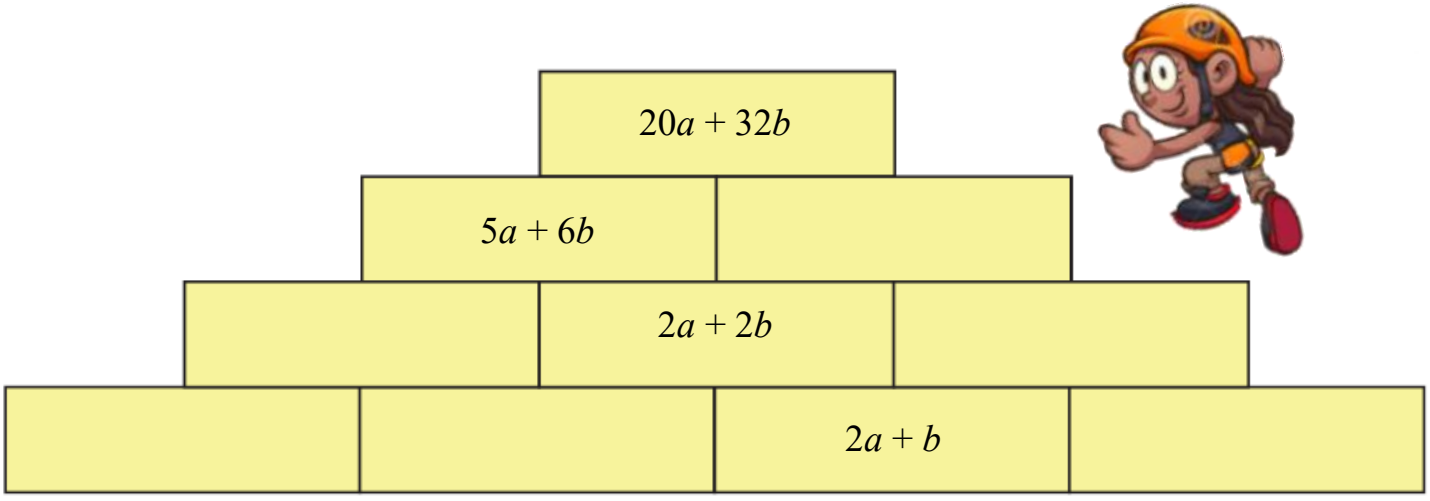


b) Complete this multiplication pyramid**.**



Q4) Complete this algebraic pyramid.

Remember, you find the expression in each block by <u>adding</u> the expressions in the two blocks below it.



Q5) Write each as an expression.

a) Seven more than four times M → _____

b) Twelve less than N → _____

c) Half of P plus 8 → _____

d) Q divided by 5, then increased by 2 → _____

e) Triple R, then subtract 6 → _____

f) The sum of two times S and 7 → _____

g) Five more than the product of 3 and X → _____

h) Y minus 4 → _____

i) Twice A plus 10 → _____

j) Z divided by 2, then subtract 3 → _____

k) Four times B increased by 9 → _____

l) Triple D plus 5 → _____

m) E divided by 3, then increased by 4 → _____

n) Twice F minus 7 → _____

Q6) A woman is m years old.

a) How old was she 8 years ago? _____

b) Her brother is 5 years older than she is. How old is he? _____

c) Her father is three times her age. How old is he? _____

Q7) A baker bakes c cakes.

a) He sells 7 cakes. How many are left? _____

b) He bakes double the remaining cakes. How many does he have now?

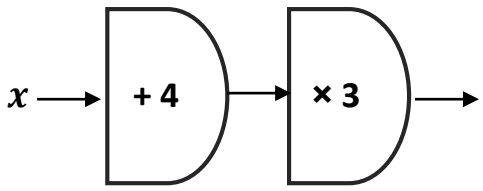
_____

c) He gives away 5 cakes to charity. How many does he have left?

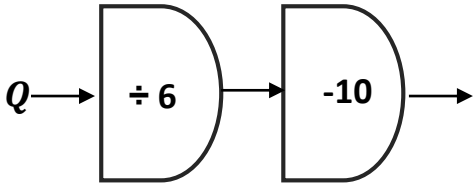
_____

Q7) Write an expression for the output of the function machine.

a)



b)



Q8) The formula for converting a temperature from Fahrenheit (F) to Celsius (C) is:

$$C = \frac{5(F - 32)}{9}$$

Convert these temperatures into °C:

a) 50°F

b) 68°F

Q9) Work out the **value** of each expression.

a) $5x + 3y$ when $x = 6$ and $y = 4$

b) $7a - 2b$ when $a = 10$ and $b = 3$

c) $m \div 4$ when $m = 36$

d) $18 \div p - 5q$ when $p = 6$ and $q = 2$

e) $9t - 4u + 6$ when $t = 7$ and $u = 3$

f) $v \div 2 + 5w$ when $v = 20$ and $w = 4$

Q10) a) A taxi charges \$5 per kilometer. Write a formula connecting the total fare, $\boldsymbol{F}$, in dollars, with the number of kilometers driven, $\boldsymbol{k}$.

_____

b) A loaf of bread costs \$2.50. Write a formula connecting the total cost, $\boldsymbol{C}$, in dollars, with the number of loaves bought, $\boldsymbol{n}$.

_____

c) Lina has \$20. Write a formula to calculate the amount of money Lina has left, L, in \$, after spending x.

_____

Q11) Expand the brackets.

a) $5\ (\ x\ +\ 8\ )$

b) $9\ (\ 2y\ -\ 3\ )$

c) $8\ (\ 2m\ +\ 9\ )$

d) $7\ (\ 5p\ -\ 2x\ )$

e) $3x\ (\ x\ +\ 6b\ )$

f) $5y\ (\ 2y\ -\ 4\ )$

c) $-7\ (\ 2p\ +\ 9\ )$

d) $-\ 6\ (\ 5y\ -\ 4\ )$

e) $x\ (\ x\ +\ b\ )$

f) $-8y\ (\ 2y\ -\ 4\ )$

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Name: _____ Date : / 11/ 2025

Subject: Practice worksheet 5 / Unit 4 Grade : 6 ( )

Fractions

4.1 working with fractions

Q1. Work out the highest common factor of.

a. 18 and 27

HCF = _____

b. 14 and 21

HCF = _____

Q2. Write $>$, $<$ in the box to make the statement correct.

a. $\frac{7}{9} \square \frac{6}{9}$ b. $\frac{4}{5} \square \frac{3}{4}$ c. $\frac{11}{12} \square \frac{5}{6}$

Q3. Out of 30 books, 12 are science books.
What fraction of the books are science books?
Write in simplest form.

.

Q4. A football team has 22 players. 5 of them are goalkeepers.
What fraction of the players are **not** goalkeepers?

4.2 Adding and subtracting fractions

Q1. Work out the lowest common multiple.

a. 6 and 9

LCM=_____

b. 4 and 10

LCM= _____

Q2. Write these improper fractions as mixed numbers.

a. $\frac{11}{4}$ = b. $\frac{19}{6}$ = c. $\frac{20}{8}$ =

Q3. Work out

a. $1\frac{1}{4} - \frac{3}{8}$ = b. $\frac{2}{5} + \frac{3}{10}$ =

Q4. A mechanic stacks a plastic panel that is $9\frac{1}{2}$ cm thick on top of a foam layer that is $3\frac{3}{4}$ cm thick.

What is the total thickness of the two layers?

4.3 Fractions, decimals and percentages.

Q1. Complete the table.

Write each fraction in its simplest form.

Fraction	Decimal	Percentage
$\frac{1}{5}$		
	0.55	
		42%

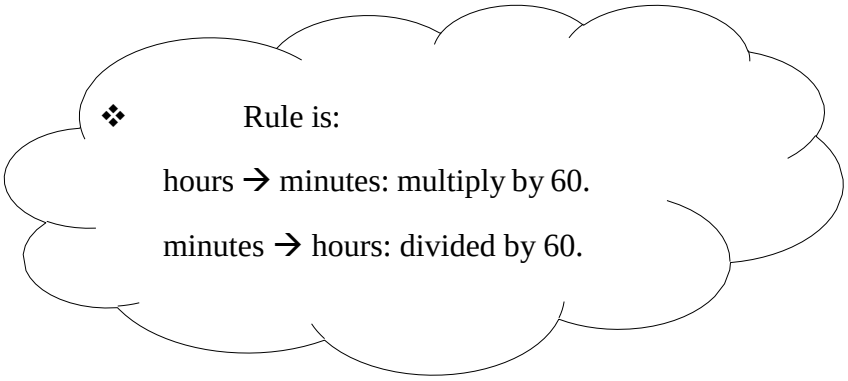
Q2. Write these fractions as decimals.

a. $\frac{2}{20}$ =

c. $\frac{4}{5}$ =

b. $\frac{3}{8}$ =

d. $\frac{5}{25}$ =



Q3. Draw a ring around the numbers that give the same time intervals.

0.5 hour	$\frac{1}{6}$ hour
$\frac{1}{4}$ hour	30 minutes
25 minutes	0.25 hour

Q4. Write the missing numbers.

a. $\frac{6}{25}$ = _____ %

b. $\frac{15}{25}$ = _____ %

c. _____ % = 0.4

4.4 Multiplying by a fraction.

Q1. Work out+

a. $\frac{3}{5} \times 45$ =

b. $4 \times \frac{2}{3}$ =

c. $16 \times \frac{5}{8}$ =

d. $5 \times \frac{4}{7}$ =

Q2. A recipe uses $\frac{3}{4}$ cup of milk. Sara makes 3 batches.
How much milk does she need?

_____ cups

Q3. The garden is 12 m long and 6 m wide.

Hana plants flowers in $\frac{1}{3}$ of the garden.

What area is planted?

_____ m^2

Q4. A water tank holds 180 *l*.

$\frac{1}{5}$ of it is used.

How many liters are used?

_____*l*

Q5. A box has 48 kg of rice. $\frac{3}{4}$ of it is sold.

How much rice was sold?

_____ kg

4.5 Working with mixed numbers.

Q1. Work out:

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

b. $6\frac{2}{3} - 1\frac{1}{6} =$

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

d. $7\frac{1}{5} - 2\frac{2}{5} =$

Q2. A pipe is $12\frac{1}{2}$ m long. A plumber cuts off $4\frac{3}{4}$ m.
How much is left?

_____metres

Q3. Lana jogs $1\frac{3}{5}$ km each morning. How far in 6 days?

_____ km

Q4. A recipe needs $1\frac{2}{3}$ cups of oil per cake.
How much oil is needed for 3 cakes?

_____ Cups

Teachers:- Qusie Hijazeen, Eman Nabas.