

SCRIBBLE WORKS PUBLISHING HOUSE

**THE FIRST ASSIGNMENT
MATHS WORKBOOK**

ANSWER BOOKLET

**FINAL ANSWERS
CHARTS
TABLES &
GRAPHS**

UNIT 1

NUMBERS AND NUMERALS

ACTIVITY 1.1

- a) Ten million two hundred thousand and forty
- b) Forty million forty thousand and four
- c) Fifty two million six hundred and three thousand and thirty
- d) Sixty three million three thousand and sixty.
- e) One hundred million

ACTIVITY 1.2

- 1) 70,000,707
- 2) 2,653,000
- 3) 19,096,012
- 4) 10,250,005
- 5) 50,050,051
- 6)

| SCRIBBLES BANK GHANA LIMITED | | | | |
|----------------------------------------------------------------------------|-----------|-----------|-------|-------|
| Deposit slip | Branch | X X X X X | Date | X X X |
| Account Name: | X X X X X | Cash | GHC | |
| Account Number: | 2584561 | GHC 50 | 2,500 | |
| Name of Depositor: | X X X X | GHC 20 | 3,500 | |
| Telephone Number: | X X X X | GHC 10 | 880 | |
| Amount in words: Seven thousand six hundred and six Ghana Cedis only | GHC 5 | 675 | | |
| | GHC 2 | 44 | | |
| | GHC 1 | 7 | | |
| | Total | 7606 | | |

ACTIVITY 1.3

- a) 9
- b) 0.9
- c) 900
- d) 90
- e) 900,000
- f) 90,000,000

ACTIVITY 1.4

- a) 45
- b) 62
- c) 30
- d) 95
- e) 80
- f) 78

NUMBERS AND NUMERALS

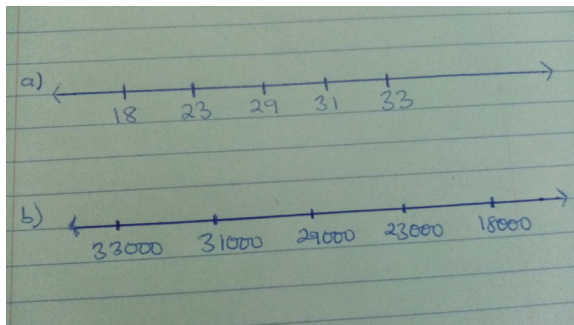
ACTIVITY 1.5

- 1) a) 365
 b) 474
 c) 300
 d) 862
 e) 927
- 2) a) 0 (Zero)
 b) 9 (Nine units)
 c) 3,000 (Three thousand)
 d) 40,000 (Forty thousand)
 e) 7,000,000 (Seven million)

ACTIVITY 1.6

- 1) a) $695 > 375 > 345$
 b) $7002 > 755 > 715 > 705$
 c) $9010 > 1900 > 1090 > 1009$
 d) $47,391,000 > 42,421,321 > 1,138,464$
 e) $100,010,110 > 710,754,321 > 53,001,645$

2)



ACTIVITY 1.7

| Number | Nearest ten | Nearest hundred | Nearest thousand |
|--------|-------------|-----------------|------------------|
| 2,857 | 2,860 | 2,900 | 3,000 |
| 7,163 | 7,160 | 7,200 | 7,000 |
| 14,123 | 14,120 | 14,100 | 14,000 |
| 23,671 | 23,670 | 23,700 | 24,000 |
| 62,418 | 62,420 | 62,400 | 62,000 |

ACTIVITY 1.8

1)

| Number | Nearest ten | Nearest hundred | Nearest thousand |
|--------|-------------|-----------------|------------------|
| 6,479 | 6,480 | 6,500 | 6,000 |
| 14,938 | 14,940 | 14,900 | 15,000 |
| 25,777 | 25,780 | 25,800 | 26,000 |
| 30,086 | 30,090 | 30,100 | 30,000 |

NUMBERS AND NUMERALS

ACTIVITY 1.13

- a) 60
- b) 210
- c) 360
- d) 630

ACTIVITY 1.14

- a) 40 cm
- b) 450 cm
- c) 30 eggs

ACTIVITY 1.15

- a) 661233
- b) 6513110
- c) 1192
- d) 2576493

ACTIVITY 1.16

- i) 214600
- ii) 10520125
- iii) 17
- iv) 293.29

ACTIVITY 1.17

- 1) GH¢ 0.10
- 2) 40 months / 3 years and 4 months
- 3) GH¢ 12,600,000.00
- 4) 60 desks

ACTIVITY 1.18

Commutative Property

- a) 4
- b) \times
- c) $\times (3 \times 2)$

Associative Property

- d) $(3 + 5)$
- e) (2×2)
- f) $(-5 + 3)$

Distributive Property

- g) $2y + 3y$
- h) $2(a + b)$
- i) $(50 \times 9) + (50 \times 5)$

Identity Property

- j) -7
- k) -7
- l) 3

ACTIVITY 1.19

- a) 1400
- b) 2000
- c) 1550000
- d) 26.6
- e) GH¢ 30.00

UNIT 2

SETS

ACTIVITY 2.1

- b) Regional capital = { Wa, Bolgatanga, Tamale, Sunyani, Kumasi, Cape Coast, Ho, Accra, Takoradi}
- c) Months beginning with letter J = { June, July, January}

ACTIVITY 2.2

- a) Things made of wood = { chair, table, cupboard, desk, ...}
- b) Things found in the classroom = { desk, table, chair, pen, ...}
- d) Things in the kitchen = { spoon, table, cup, fork, ...}
- e) Mathematical instruments = { protractor, rule, a pair of compasses, ...}

ACTIVITY 2.3

- 1) a) Set of even numbers
- 2) a) $A = \{ \text{April, June, September, November} \}$
- b) Set of prime numbers
- b) $B = \{ 4, 6, 8, 9, 10, 12, 14, 15, 16, 18 \}$
- c) Set of days of the week beginning with 'T'
- c) $C = \{ 2, 3, 5 \}$
- d) Set of odd numbers
- d) $D = \{ 8, 12, 16, 20, 24, 28 \}$
- e) Set of months with 30 days
- e) $E = \{ 1, 4, 9, 16, 25 \}$

ACTIVITY 2.4

- a) \in
- b) \in
- c) \in
- d) \notin
- e) \notin

ACTIVITY 2.5

- b) 48 is a member of the set of multiples of 6.
- c) 7 is a member of the set of factors of 48.
- d) Yam is not a member of the set of fruits.
- e) Africa is not a member of the set of countries in West Africa.

ACTIVITY 2.6

- a) $\{ 4, 6, 8, 9, 10, 12, 14, 15, 16, 18 \}$; finite set
- b) $\{ 2, 4, 6, 8, 10, \dots \}$; infinite set
- c) $\{ 2 \}$; finite set
- d) $\{ \}$ or \emptyset empty set
- e) $\{ \}$ or \emptyset empty set

SETS

ACTIVITY 2.7

- a) Equal
- b) Not equal
- c) Not equal
- d) equal
- e) Not equal

ACTIVITY 2.8

- a) Not equivalent
- b) Not equivalent
- c) Equivalent
- d) Equivalent
- e) Not equivalent

ACTIVITY 2.9

- 1) Y is a subset of V
- 2) a) False
- c) True
- e) True
- b) False
- d) True

ACTIVITY 2.10

- a) {a}; { }
- b) {a, b}; {a}; { }
- c) {1, 2, 3}; {1, 2}; {1, 3}; {2, 3}; {1}; {2}; {3}; { }
- d) {a, b, c, d}; {a, b, c}; {b, c, d}; {a, c, d}; {a, b, d}; {a, b}; {b, c}; {c, d}; {a, c}; {b, d}; {a, d}; {a}; {b}; {c}; {d}; { }

ACTIVITY 2. 11

- a) \subset
- b) \in
- c) \notin
- d) \notin
- e) \notin

ACTIVITY 2.12

- a) $M \cap N = \{\text{milk, sugar}\}$
- b) $X \cap Y = \{\}$
- c) $A \cap B = \{\}$
- d) $V \cap W = \{\}$
- e) $P \cap Q = \{2, 3\}$

ACTIVITY 2.13

- a) $A \cup B = \{\emptyset, \circ, \Delta, \square\}$
- b) $E \cup F = \{a, b, c, d, e, f, g, h\}$
- c) $G \cup H = \{1, 5, 7, 9, 13\}$
- d) $X \cup Y = \{\text{Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday}\}$
- e) $R \cup T = \{5, 10, 15, 20\}$

ACTIVITY 2.14

- 1) a) $A = \{2, 3, 5, 7, 11, 13\}$
 $B = \{1, 3, 5, 7, 9, 11, 13\}$
b) $A \cap B = \{3, 5, 7, 11, 13\}$
 $A \cup B = \{1, 2, 3, 5, 7, 9, 11, 13\}$

- 2) $P = \{20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30\}$
 $Q = \{1, 3\}$
 - i) $P \cap Q = \{\}$
 - ii) $P \cup Q = \{1, 3, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30\}$

FRACTIONS

ACTIVITY 3.8

a) $\frac{1}{16}$

b) $\frac{3}{10}$

ACTIVITY 3.9

a) 4

b) 54

c) $\frac{1}{60}$

d) $\frac{25}{100}$

ACTIVITY 3.10

a) $1\frac{1}{6}$

b) 2

c) $\frac{35}{39}$

ACTIVITY 3.11

a) $\frac{1}{1200}$

b) 84 pupils

UNIT 4

SHAPE AND SPACE

ACTIVITY 4.1

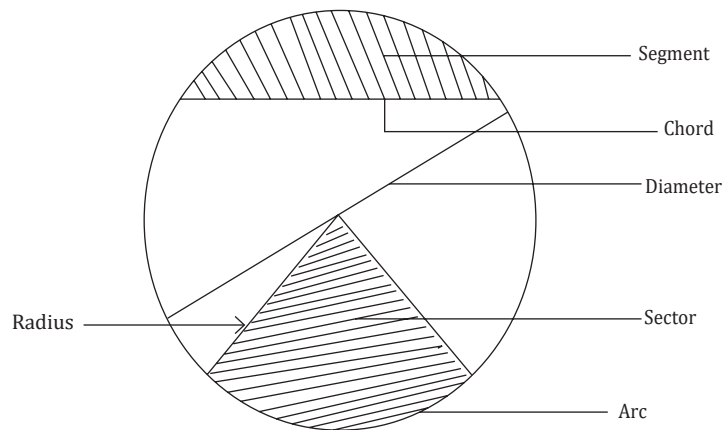
- | | |
|-----------|-------------|
| a) Cuboid | b) Cuboid |
| c) Cone | d) Cylinder |

ACTIVITY 4.2

- | | |
|---------------|-------------|
| a) 4 | |
| b) 4 | |
| c) Cardboard | White board |
| Crayon box | Rulers |
| Exercise book | |

ACTIVITY 4.4

(A circle with the parts labelled)



ACTIVITY 4.5

- | | |
|-----------------------|-------------------------|
| a) Kite | b) Parallelogram |
| c) Rhombus | d) Rectangle |
| e) Square | f) Equilateral triangle |
| g) Isosceles triangle | h) Pentagon |
| i) Circle | j) Hexagon |

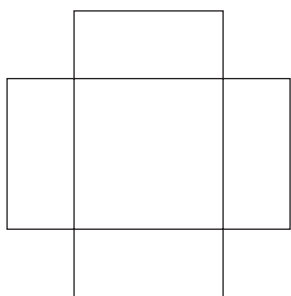
ACTIVITY 4.6

| Prisms | Pyramids |
|------------------|--------------------|
| Cuboid | Cone |
| Cylinder | Triangular pyramid |
| Cube | |
| Triangular prism | |

SHAPE AND SPACE

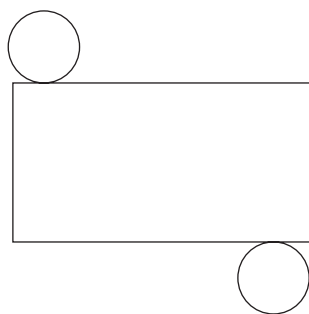
ACTIVITY 4.7

a)



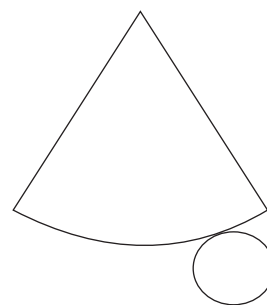
(cuboid)

b)



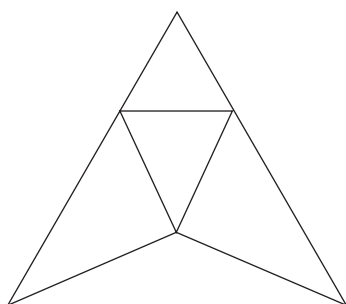
(cylinder)

c)



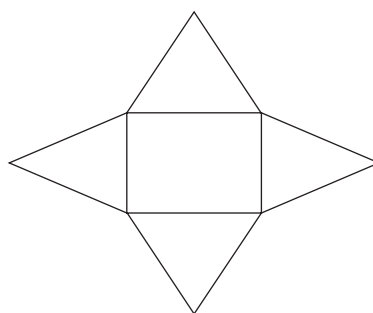
(cone)

d)



(triangular pyramid)

e)



(rectangular pyramid)

ACTIVITY 4.8

| Name of figure | Number of surfaces | Number of edges | Number of vertices |
|------------------|--------------------|-----------------|--------------------|
| Triangular prism | 4 | 6 | 4 |
| Cone | 2 | 2 | 1 |
| Cylinder | 3 | 2 | 0 |
| Sphere | 1 | 0 | 0 |
| Cupboard | 6 | 12 | 8 |
| Cube | 6 | 12 | 8 |

ACTIVITY 4.9

| Solid | Face(f) + vertice (v) | Edges (v) |
|--------------------|-----------------------|-----------|
| Cube | 6 + 8 | 14 |
| Hexagonal prism | 8 + 12 | 20 |
| Square base Prism | 6 + 8 | 14 |
| Cylinder | 3 + 0 | 3 |
| Cuboid | 6 + 8 | 14 |
| Triangular pyramid | 5 + 6 | 11 |
| Cone | 2 + 1 | 3 |
| Octahedron | 10 + 16 | 26 |

UNIT 5

LENGTH AND AREA

ACTIVITY 5.1

- a) 86 cm
- b) 36 cm
- c) 30 cm
- d) 120 cm
- e) 81cm

ACTIVITY 5.2

- a) 16 cm
- b) 50 cm
- c) 35 cm
- d) 32 cm
- e) 28 cm
- f) 126 cm

ACTIVITY 5.3

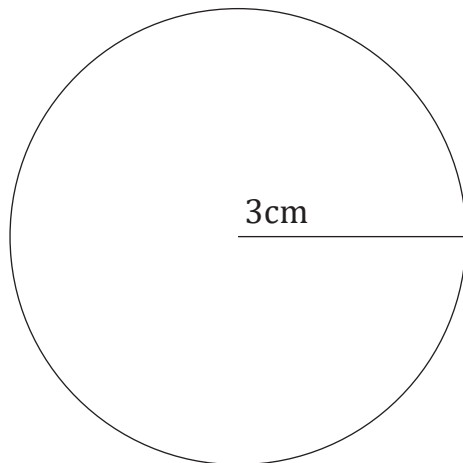
- 1) 6.7 cm
- 2) 6 cm
- 3) 7.5 cm
- 4) 8 cm
- 5) 10 cm
- 6) 12.5 cm
- 7) 8.6 cm
- 8) 12.5 cm

ACTIVITY 5.4

- 1) 83.5 cm
- 2) a) 24cm
- b) Octagon
- 3) 10 sides
- 4) 10 cm

ACTIVITY 5.5

- a)
- b) 28.26 cm
- c) 14 cm



$$C = 18.84 \text{ cm}$$

UNIT 6

POWERS OF NUMBERS

ACTIVITY 6.1

- a) 8^5
- b) m^7
- c) 11^4
- d) $(\frac{1}{3})^6$
- e) $(4.5)^6$

ACTIVITY 6.2

- a) $6 \times 6 \times 6 \times 6$
- b) $K \times K \times K \times K \times K$
- c) $\frac{1}{2} \times \frac{1}{2}$
- d) $5 \times 5 \times 5 \times 5 \times 5 \times 5$
- e) $r \times r \times r$

ACTIVITY 6.3

- a) 1000
- b) 256
- c) $\frac{1}{4}$
- d) $\frac{1}{16}$

ACTIVITY 6.4

- a) $3^2 \times 2^2$
- b) $2^3 \times 3^2$
- c) $2^4 \times 5$
- d) $2 \times 3^2 \times 5$

ACTIVITY 6.5

- a) $2^2 \times 5^2$
- b) $2^4 \times 3^2$
- c) $3^2 \times 5^2$
- d) $2^4 \times 3 \times 5^2$

ACTIVITY 6.6

- a) 4^4
- b) $15a^8$
- c) k^{14}
- d) $3^2 \times 5^4$

ACTIVITY 6.7

- a) b^7
- b) $2a^2$
- c) y^3
- d) $\frac{2}{3}x^9$

ACTIVITY 6.8

- a) 5
- b) 1
- c) 6
- d) 10

POWERS OF NUMBERS

ACTIVITY 6.9

a) 1

b) 1

c) 1

d) 1

ACTIVITY 6.10

a) $1 + 3a$

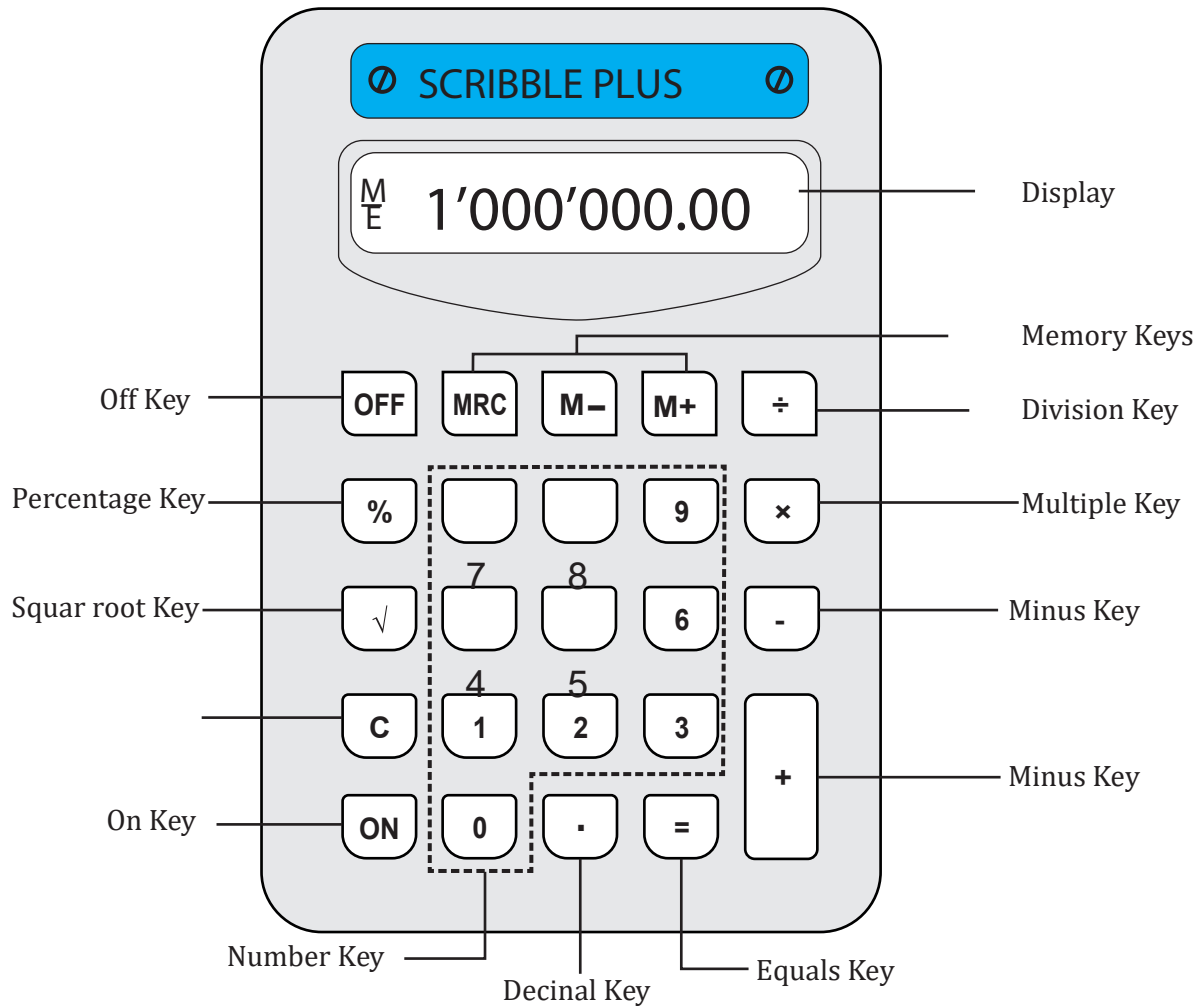
b) 6

c) 1

d) 255

$\frac{3}{2}$

ACTIVITY 7.1



x^2 Square a number

CE Clear all

$1/x$ Reciprocate a number

← X Delete

\pm Negate

ACTIVITY 7.2

- | | |
|------------------|-------------------------------|
| a) (+) and (6) | b) (-) and (4) |
| c) (×) and (5.2) | d) (÷) and (8) |
| e) (5) and (1/x) | f) (11) and (x ²) |
| g) (2) and (±) | h) (16) and (√) |

ACTIVITY 7.3

Addition (+)

1,125,232

20.634

11/12

Subtraction (-)

62,665

761,587.42

1/3

Multiplication (×)

93,414,400

1,550.36

5/21

Division (÷)

6

3.4776318021

2

ACTIVITY 7.4

- | | |
|----------------|-----------|
| a) 8.6334093 | b) 85504 |
| c) 12,252,303 | d) 330.61 |
| e) 0.649253731 | f) 5 |
| g) 0.001253029 | h) 186.34 |

ACTIVITY 7.5

- | | |
|-------------|------------|
| a) 103,180 | b) 182,752 |
| c) 18,275.2 | |

UNIT 8

RELATIONS

ACTIVITY 8.1

1) $x \rightarrow x^2$

ACTIVITY 8.2

a) $x \rightarrow 2(x)$

b) Days of the week and their names given to people born on those days.

c) Countries and their currencies.

d) $x \rightarrow x^2$

ACTIVITY 8.3

1) Relations: one-to-one

Domain: {1, 2, 3, 4, 5}

Co-domain: {1, 4, 9, 16, 25}

2) Relation: one-to-one

Domain: {10, 6, 8, 9, 7}

Co-domain: {20, 12, 18, 14, 16}

3) Relation: one-to-one

Domain: {400, 1, 4, 100, 64}

Co-domain: {8, 1, 2, 10, 20}

4) Relation: one-to-one

Domain: {0, 1, 2, 3}

Co-domain: {0, 2, 4, 6}

5) Relation: one-to-one

Domain: {Sunyani, Ho, Takoradi, Tamale, Wa}

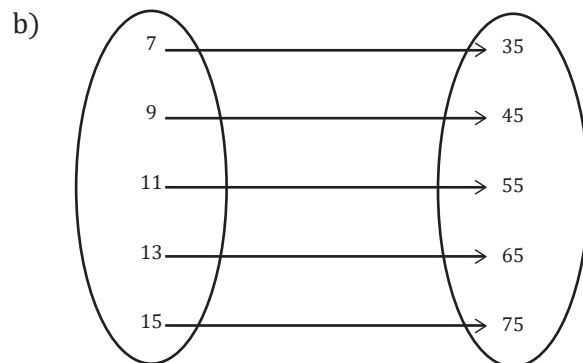
Co-domain: {Brong-Ahafo, Volta, Western, Northern, Upper East}

ACTIVITY 8.4

- a) i) 35
ii) 45
iii) 75
iv) 55
v) 65

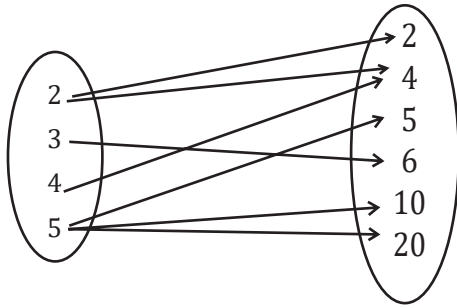
\therefore Range of B = {35, 45, 65, 75}

- c) {(7, 35), (9, 45), (11, 55), (13, 65), (15, 75)}



RELATIONS

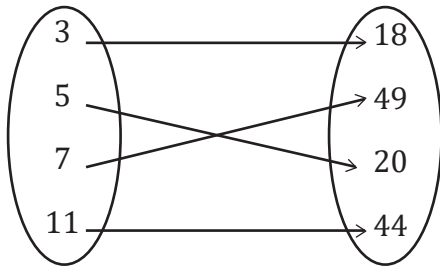
ACTIVITY 8.5



Range: {2, 3, 4, 5, 6, 8, 9, 10, 15}

ACTIVITY 8.6

1) a)



b) $\{(3, 18), (5, 20), (7, 49), (11, 44)\}$

2) $\{(0, 0), (2, 1), (4, 2), (6, 3), (7, 7), (8, 4), (10, 5)\}$

ACTIVITY 8.7

a) $y = 2x + 2$

b) $y = \frac{1}{2}x$

ACTIVITY 8.8

a) $x \rightarrow \frac{x}{4}$

b) $y = 4x + 3$

ACTIVITY 8.9

a) $y = x^2 + 1$

b) $p = 26$

c) $t = 12$

ACTIVITY 8.10

a) i) 1

ii) 8

iii) 27

iv) 64

b) 1, 8, 27, 64

RELATIONS

ACTIVITY 8.11

- a) 17, 20
- b) 26, 37
- c) 125, 216
- d) 20, 17
- e) 13, 7

ACTIVITY 8.12

- a) 2,
- b) 0.5, -1
- c) $95\frac{5}{2}$
- d) 132, 120, 84
- e) 77, 70, 63

ACTIVITY 8.13

- a) 32
- b) 46
- c) $2n + 2$
- d) $3n + 1$
- e) 102

UNIT 9

ALGEBRAIC EXPRESSIONS

ACTIVITY 9.1

- | | |
|-------------------------------------------|-------------------------------------------------|
| a) i) He is a mathematics teacher. | b) i) Mr. Owusu is a mathematics teacher |
| ii) She passed the WASSCE in 2016 | ii) Robert passed the WASSCE in 2016 |
| iii) This pupil is more than 13 years old | iii) Form two pupils are more than 13 years old |
| iv) It conducts electricity | iv) Metals conduct electricity |
| v) The book was published in Ghana | v) JHS Maths textbooks were published in Ghana |

ACTIVITY 9.2

- | | |
|-------------------------------------------|-----------|
| a) {Peter, Mary, James, Emmanuel, George} | b) {o, e} |
| c) {4, 8} | d) {may} |
| e) {potato, rice, bread} | |

ACTIVITY 9.3

- | | |
|----------|----------|
| a) $9x$ | b) $3m$ |
| c) f | d) $10p$ |
| e) $10n$ | f) $30t$ |
| g) $13n$ | h) $14a$ |
| i) $2m$ | j) $24w$ |

ACTIVITY 9.4

- | | |
|---------------|------------------|
| a) $4xy + 4y$ | b) $5x$ |
| c) $-8a + 12$ | d) $a + 3b + 3c$ |

ACTIVITY 9.5

- | | |
|------------------|-------------------|
| a) $7x - 2y + 6$ | b) $7a - 5ab - 1$ |
| c) $2m + 9n + 9$ | d) $9x - 4y - 3$ |

ACTIVITY 9.6

- | | |
|-----------------|---------------------|
| i) $x + 4 = 23$ | ii) $x + 9 = 2x$ |
| iii) $2x = 46$ | iv) $2(x + 4) = 28$ |
| v) $x + x = 24$ | |

ACTIVITY 9.7

- | | |
|----------|------------|
| a) $3a$ | b) $5m$ |
| c) $12a$ | d) $12a^2$ |

ALGEBRAIC EXPRESSIONS

e) $24a^2b$

g) $18xy^2$

i) $13p^2q$

f) $30p^2$

h) $35n^2$

j) $48m^2$

ACTIVITY 9.8

a) m^2

c) $16a^4$

e) $24x^3$

g) $20b^3$

i) $6m^9$

b) $21k^3$

d) $32p^2$

f) $6a^4$

h) $14x^2y^2$

j) $8p^7q^5$

UNIT 10

CAPACITY, MASS, TIME AND MONEY

ACTIVITY 10.1

- a) 856 ml
- b) 1200 ml
- c) 3200 ml
- d) 1129 ml

ACTIVITY 10.2

- a) 6 l 942 ml
- b) 11.53 l
- c) 12 l 660 ml
- d) 618 l 570 ml

ACTIVITY 10.3

- a) 2 l 250 ml
- b) 3 l 170 ml
- c) 937 ml
- d) 9 l 121 ml

ACTIVITY 10.4

- a) 219 l 000 ml
- b) 20 cm
- c) 498 l

ACTIVITY 10.5

- a) 6560 g
- b) 3388 g
- c) 7072 g
- d) 59100 g

ACTIVITY 10.6

- a) 0.7 kg
- b) 1.012 kg
- c) 13.1 kg
- d) 2.820 kg

ACTIVITY 10.7

- a) 9 kg 291 g
- b) 49 kg 541 g
- c) 1 kg 202 g
- d) 3 kg 988 g

ACTIVITY 10.8

- a) 816 g
- b) 21.2 kg

ACTIVITY 10.9

- a) 10 : 30
- b) 3 : 35
- c) 3 : 30
- d) 6 : 53
- e) 1 : 15

CAPACITY, MASS, TIME AND MONEY

ACTIVITY 10.10

- a) 600 minutes
- b) 33 minutes
- c) 3.3 minutes
- d) 4,320 minutes
- e) 150 minutes

ACTIVITY 10.11

- a) 15 h 07 min
- b) 5 h 28 min
- c) 9 h 47 min
- d) 1 h 50 min

ACTIVITY 10.12

- a) 10 h 15 min
- b) 11 : 00 am
- c) 14 : 07 hours GMT

ACTIVITY 10.13

- a) 50 Gp
- b) 50 Gp + 2(20 Gp)
- c) 50 Gp + 20 Gp
- d) 20 Gp + 20 Gp
- e) 5Gp + 4(1 Gp)

ACTIVITY 10.14

- a) GH¢ 15.92
- b) GH¢ 46.51
- c) GH¢ 9.81
- d) GH¢ 1.58

ACTIVITY 10.15

- a) GH¢ 450.00
- b) GH¢ 62.50
- c) GH¢ 1,480.00
- d) GH¢ 850.00
- e) GH¢ 134.00

ACTIVITY 10.16

- a) 22 Gp
- b) GH¢ 16.00
- c) One 20 Gp and one 10 Gp

INTEGERS

ACTIVITY 11.8

- | | |
|-------|--------|
| a) 6 | b) -1 |
| c) 11 | d) 10 |
| e) 10 | f) -14 |
| g) 3 | h) -10 |
| i) 6 | j) 6 |

ACTIVITY 11.9

- | | |
|--------|-------|
| a) -24 | b) 30 |
| c) 180 | d) 6a |
| e) 0 | |

ACTIVITY 11.10

- | | |
|--------|--------|
| a) 18 | b) 24 |
| c) -24 | d) -24 |
| e) -24 | f) 24 |
| g) -35 | h) -10 |
| i) -25 | j) 0 |

ACTIVITY 11.11

- | | |
|-------|-------|
| a) -3 | b) 2 |
| c) 4 | d) -7 |

ACTIVITY 11.12

- | | |
|-------|------|
| a) 19 | b) 0 |
| c) -8 | d) 2 |

ACTIVITY 11.13

- | | |
|---------|--------|
| i) -12 | ii) -2 |
| iii) -3 | iv) -5 |
| v) 24 | |

ACTIVITY 11.14

- | | |
|-------|--------|
| a) -2 | b) -3 |
| c) - | d) -15 |
| e) -2 | |

DECIMAL FRACTIONS

ACTIVITY 12.10

- a) 30
- b) 0.12
- c) 142.86
- d) 15

ACTIVITY 12.11

- a) 3.05
- b) 20.6
- c) 1.4952
- d) 0.11165

ACTIVITY 12.12

- a) 6.2
- b) 3.2
- c) 9.3
- d) 0.1
- e) 7.1
- f) 0.1
- g) 19.0
- h) 23.1
- i) 9.2
- j) 10.1

ACTIVITY 12.13

- a) 0.05
- b) 0.333
- c) 90
- d) 0
- e) 1.000

ACTIVITY 12.14

- a) 9
- b) 46
- c) 568
- d) 17893
- e) 700

ACTIVITY 12.15

- a) 567
- b) 0.00357
- c) 45600
- d) 90

ACTIVITY 12.16

- a) 8×10^1
- b) 1×10^3
- c) 1.5×10^5
- d) 1.4×10^{11}

DECIMAL FRACTIONS

ACTIVITY 12.17

- a) 3×10^{-2}
- b) 1.48×10^{-3}
- c) 1.4572×10^{-1}
- d) 1.4502×10^{-3}
- e) 1.2478×10^{-3}

ACTIVITY 12.18

- a) 500
- b) 0.0063
- c) 1150000000
- d) 0.0000911
- e) 16,000,000,000,000,000,000

ACTIVITY 12.19

- a) 9.45×10^{-2}
- b) 4×10^{-3}
- c) 2.8×10^{-3}
- d) 4×10^{14}

UNIT 13

PERCENTAGES

ACTIVITY 13.1

- | | |
|----------------------|----------------------|
| i) $\frac{1}{10}$ | ii) $\frac{1}{4}$ |
| iii) $\frac{1}{2}$ | iv) $\frac{7}{25}$ |
| v) $\frac{4}{5}$ | vi) $\frac{3}{10}$ |
| vii) $\frac{1}{1}$ | viii) $\frac{5}{1}$ |
| ix) $\frac{50.5}{1}$ | x) $\frac{310.5}{1}$ |


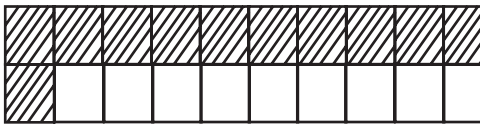



ACTIVITY 13.2

- | | |
|----------|-----------|
| i) 50% | ii) 35% |
| iii) 10% | iv) 70% |
| v) 12.5% | vi) 88.8% |
| vii) 75% | viii) 8% |
| ix) 70% | x) 73% |

ACTIVITY 13.3

- | | |
|-----------------------|-----------------------|
| i) a) $\frac{1}{6}$ | ii) a) $\frac{4}{5}$ |
| b) 16.6% | b) 80% |
| iii) a) $\frac{1}{2}$ | iv) a) $\frac{1}{10}$ |
| b) 50% | b) 10% |
| v) a) $\frac{3}{8}$ | |
| b) 37.5% | |

ACTIVITY 13.4

- | | |
|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| a)  | b)  |
| c)  | d)  |
| e)  | |

PERCENTAGES

ACTIVITY 13.5

- a) 10
c) 37.5%
- b) $\frac{3}{8}$

ACTIVITY 13.6

- a) $0.52, \frac{11}{20}, \frac{17}{30}, 73\%$
- b) $27\%, 0.28, 0.32, \frac{1}{3}, \frac{2}{5}$

ACTIVITY 13.7

- a) $\frac{3}{4} < 80\%$
c) $0.125 = \frac{1}{8}$
e) $\frac{2}{5} < 41\%$
- b) $\frac{1}{6} < 0.25$
d) $68\% > \frac{2}{3}$

ACTIVITY 13.8

- a) GH¢ 2.50
c) $\frac{3}{4}$
e) 3312.5
- b) GH¢ 205.00
d) GH¢ 10750.00

ACTIVITY 13.9

- a) 33.3
c) 125
e) 75
- b) 15
d) 75

ACTIVITY 13.10

- a) 30%
- b) 95%

ACTIVITY 13.11

- a) GH¢ 336.00
- b) 20%

ACTIVITY 13.12

- a) GH¢ 10.50
- b) 40%

ACTIVITY 13.13

- a) 2%
- b) 50%

ACTIVITY 13.14

- a) GH¢ 40,000.00
- b) GH¢ 3,200.00

UNIT 14

COLLECTING AND HANDLING DATA

ACTIVITY 14.1

a) W, W, W, W, W, W, W, W, W
 B, B, B, B, B
 Y, Y, Y, Y
 C, C

b) 3, 3, 3, 3, 3, 7, 7, 7, 7, 1, 1, 1,
 2, 2, 2, 2, 2, 2, 2, 4, 5, 5, 6, 6,
 6

ACTIVITY 14.2

| Score (x) | Tally | Frequency (f) | fx |
|---------------|-----------|-------------------|-------------------|
| 1 | ### | 5 | 5 |
| 2 | ### // | 7 | 14 |
| 3 | ### // | 7 | 21 |
| 4 | ### ### / | 11 | 44 |
| 5 | //// | 4 | 20 |
| 6 | ### / | 6 | 36 |
| | | $\Sigma f = 40$ | $\Sigma fx = 140$ |

ACTIVITY 14.3

| Marks (x) | Tally | Frequency (f) | fx |
|---------------|-------------|-------------------|-------------------|
| 3 | | | 0 |
| 4 | /// | 3 | 12 |
| 5 | //// | 4 | 20 |
| 6 | ### | 5 | 30 |
| 7 | ### ### /// | 13 | 91 |
| 8 | ### ### / | 11 | 88 |
| 9 | //// | 4 | 36 |
| | | $\Sigma f = 40$ | $\Sigma fx = 277$ |

COLLECTING AND HANDLING DATA

ACTIVITY 14.9

a)

| Marks (x) | Tally | Frequency (f) | fx |
|---------------|-------|-------------------|-------------------|
| 1 | / | 1 | 1 |
| 2 | // | 2 | 4 |
| 3 | // | 2 | 6 |
| 4 | /// | 3 | 12 |
| 5 | // | 2 | 10 |
| 6 | // | 2 | 12 |
| 7 | //// | 5 | 35 |
| 8 | /// | 3 | 24 |
| | | $\Sigma f = 20$ | $\Sigma fx = 104$ |

b) i) 7

ii) 5.5

iii) 5.2

ACTIVITY 14.10

a)

| Mark (x) | Tally | Frequency (f) | fx |
|--------------|-----------|-------------------|-------------------|
| 1 | / | 1 | 1 |
| 2 | /// | 3 | 6 |
| 3 | //// / | 6 | 18 |
| 4 | //// /// | 8 | 32 |
| 5 | //// //// | 9 | 45 |
| 6 | //// // | 7 | 42 |
| 7 | //// | 4 | 28 |
| 8 | // | 2 | 16 |
| | | $\Sigma f = 40$ | $\Sigma fx = 188$ |

b) 5

c) 4.7