

2024 - SCIENCE & ELEMENTARY TECHNOLOGY - Primary P6**Past Paper ANSWERS**

SECTION: ATTEMPT ALL QUESTIONS (100 MARKS)

1) Write the number in words: 12,056,418 (2 marks)

Twelve million fifty-six thousand four hundred eighteen.

2) Form numbers using given digits (2 marks)

Digits: 8, 0, 5, 7, 2

a) **Biggest** number (1 mark):

→ **87,520**

b) **Smallest** number (1 mark):

→ **20,578**

3) Subtract 4,325,678 – 2,478,529 (2 marks)

$$\begin{array}{r} 4,325,678 \\ -2,478,529 \\ \hline = 1,847,149 \end{array}$$

4) Convert 50,000 Frw to USD (2 marks)

$$\begin{array}{l} 1 \text{ USD} = 1,000 \text{ Frw} \\ 50,000 \div 1,000 = \mathbf{50 \text{ USD}} \end{array}$$

5) Define “scale.” (2 marks)

A **scale** is a ratio between a distance on a map or drawing and the actual distance on the ground.

6) Round 5.297 to the nearest hundredths (2 marks)

5.297 → **5.30**

7) Use <, > or = to compare (2 marks)

a) $\frac{1}{6} < 0.32$

b) $145\,700 = 1\,457 \times 100$

8) Work out $15ca + 20ca = \dots ca$ (2 marks)

$15ca + 20ca = \mathbf{35ca}$

9) Convert 0.95 to a fraction and simplify (2 marks)

$0.95 = \frac{95}{100} = \mathbf{\frac{19}{20}}$

10) Simplify completely (2 marks)

$A^3b^2a^4bc =$

(Interpreted as: $\mathbf{A^3 \times b^2 \times a^4 \times b \times c}$)

Combine like terms:

- Combine $\mathbf{a^3}$ and $\mathbf{a^4} \rightarrow \mathbf{a^3 \times a^4 = a^7}$
- Combine $\mathbf{b^2}$ and $\mathbf{b} \rightarrow \mathbf{b^2 \times b^1 = b^3}$
- Keep $\mathbf{c}$ as is.

✓ **Final Answer: $\mathbf{a^7 b^3 c}$**

11) Find the missing two fractions in the sequence (2 marks)

$\frac{1}{3} ; \frac{1}{6} ; \frac{1}{12} ; \dots ; \dots$

Each term $\div 2 \rightarrow$ next term.

$\rightarrow \mathbf{\frac{1}{24}, \frac{1}{48}}$

12) Work out (2 marks)

a) $(-12) \times (-10) = \mathbf{120}$

b) $(-20) + (+4) = \mathbf{-16}$

13) Correct definition of probability (2 marks)

Correct answer: **(b) Probability is the chance that something will happen.**

14) Convert 50 kg + 23 hg into dg (2 marks)

50 kg = 50,000 g

23 hg = 2,300 g

Total = 52,300 g = **523,000 dg**

15) Complete with data types (2 marks)

a) Data with numerical values → **quantitative data**

b) Numerical data expressed in whole numbers → **discrete data**

16) Share 15,000 books among 5 schools (2 marks)

$15,000 \div 5 = \mathbf{3,000 \text{ books}}$

17) Fill in the missing number (2 marks)

1 $\frac{3}{4}$ of 360 is equal to

$1\frac{3}{4} = 1 + \frac{3}{4} = \mathbf{7/4}$

Compute:

$7\frac{3}{4} \times 360 = 7 \times 90 = 630$

✓ **Final Answer: 630**

18) Next two numbers: 4, 7, 10,... (2 marks)

Pattern: +3

→ **13, 16**

19) Quick multiplication: 56×11 (2 marks)

616

20) Complementary angle of 60° (2 marks)

$90^\circ - 60^\circ = \mathbf{30^\circ}$

21) Poles around circular fence (2 marks)

Fence = 45 m

Pole spacing = 5 m

$45 \div 5 = \mathbf{9 \text{ poles}}$

22) Time from 8:45 p.m. to 10:45 p.m. (2 marks)

= 2 hours

23) $3/4 + 1/2$ (2 marks)

$1/2 = 2/4$

$3/4 + 2/4 = 5/4 = \mathbf{1\frac{1}{4}}$

24) Perimeter of rectangle (2 marks)

$P = 2(L + W) = 2(15 + 10) = \mathbf{50 \text{ m}}$

25) Exterior angle = 72° . Find interior angle (2 marks)

Interior = $180^\circ - 72^\circ = \mathbf{108^\circ}$

26) HCF of 30, 36, 48 (3 marks)

$$30 = 2 \times 3 \times 5$$

$$36 = 2^2 \times 3^2$$

$$48 = 2^4 \times 3$$

Common factors: $2 \times 3 = \mathbf{6}$

27) Solve: $3(x + 1) = 9$ (3 marks)

$$3x + 3 = 9$$

$$3x = 6$$

$$x = \mathbf{2}$$

28) $\frac{3}{4}$ of class are girls; class has 48 pupils (3 marks)

$$\text{Girls} = \frac{3}{4} \times 48 = 36$$

$$\text{Boys} = 48 - 36 = \mathbf{12 \text{ boys}}$$

29) Area of circle, $r = 15 \text{ cm}$, $\pi = 3.14$ (3 marks)

$$A = \pi r^2 = 3.14 \times 15^2 = 3.14 \times 225 = \mathbf{706.5 \text{ cm}^2}$$

30) Volume of cube, side = 7 dm (convert to cm^3) (3 marks)

$$7 \text{ dm} = 70 \text{ cm}$$

$$V = 70^3 = \mathbf{343,000 \text{ cm}^3}$$

31) Ratio sharing: 3 : 5 (7 marks)

- a) Total ratio = **8**
 b) Mugabo = $\frac{3}{8} \times 120,000 = \mathbf{45,000 \text{ Frw}}$
 c) Kaliza = $\frac{5}{8} \times 120,000 = \mathbf{75,000 \text{ Frw}}$
 d) Difference = $75,000 - 45,000 = \mathbf{30,000 \text{ Frw}}$

32) Simple interest: 100,000 Frw at 3% monthly for 5 years (7 marks)

Time = 5 years = 60 months

$I = PRT = 100,000 \times 0.03 \times 60 = \mathbf{180,000 \text{ Frw}}$

Total amount = $100,000 + 180,000 = \mathbf{280,000 \text{ Frw}}$

33) Market purchases (6 marks + 1 mark)

a) Complete the table

Item	Price each	Total expense
4 kg meat	4,500 Frw/kg	18,000 Frw
67 kg rice	1,400 Frw/kg	93,800 Frw
Oil	3 litres	7,500 Frw

Total expenditure = $18,000 + 93,800 + 7,500 = \mathbf{119,300 \text{ Frw}}$

b) Savings

$150,000 - 119,300 = \mathbf{30,700 \text{ Frw}}$

34) Kagwa & Manzi travelling (7 marks)

Distance = 520 km

Kagwa: 80 km/h from 7:00 a.m.

Manzi: 100 km/h from 9:00 a.m. (2 hours later)

Let t = hours after 7:00 a.m. when they meet

Manzi travels $(t - 2)$ hours.

Equation:

$$80t + 100(t - 2) = 520$$

$$80t + 100t - 200 = 520$$

$$180t = 720$$

$$t = 4 \text{ hours}$$

a) Time they meet

$$7:00 + 4 \text{ hours} = \mathbf{11:00 \text{ a.m.}}$$

b) Distance by Kagwa

$$80 \times 4 = \mathbf{320 \text{ km}}$$

c) Distance by Manzi

$$520 - 320 = \mathbf{200 \text{ km}}$$

35) Bar chart interpretation (7 marks)

(Image on page 11)

2024 - Mathematics - Primary P6...

Learners: Inza, Munene, Kofi, Kwizera, Susana, Keza, Gatera

Approximate marks from the graph:

- Inza ≈ 60
- Munene ≈ 40
- Kofi ≈ 20
- Kwizera ≈ 30
- Susana ≈ 90
- Keza ≈ 80
- Gatera ≈ 50

a) Number of learners (1 mark)

→ **7 learners**

b) How many learners got the same marks? (1 mark)

→ **None** (all bars have different heights)

c) Names of learners with same marks (1 mark)

→ **None**

d) Learners scoring $< 50\%$ (i.e., < 50 marks) (1 mark)**

Munene (40), Kofi (20), Kwizera (30) → **3 learners**

e) Highest marks (1 mark)

→ **Susana**

f) Lowest marks (1 mark)

→ **Kofi**

g) Marks in ascending order (1 mark)

20 (Kofi), 30 (Kwizera), 40 (Munene), 50 (Gatera), 60 (Inza), 80 (Keza), 90 (Susana)

END