Thinker™
EDUCATION
MATH SPECIALISTS
PRIMARY & SECONDARY

2024
P5 WA1 MATH

PEI HWA PRESBYTERIAN PRIMARY SCHOOL

DETAILED SOLUTIONS

Detailed solutions are crafted following the methods taught at Thinker Education and are offered as a guiding reference. Any logically sound mathematical answers are accepted.
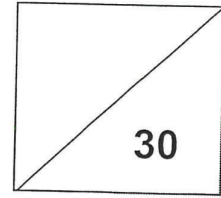
For Thinker parents, the respective levels' blank question papers and detailed solutions have been uploaded to Teams.

For others, please Whatsapp us at 9831 9770 to obtain the question papers for your child to practise.

Pei Hwa Presbyterian Primary School
Mathematics
Weighted Assessment 1
Primary 5
Whole Numbers and Fractions

30

Name: **Detailed Solutions** (   )   Class: P5 L____ / 5M____

Date : _____   Parent's Signature: _____

Questions **1** to **10** carry 1 mark each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and write your answer in the bracket provided.
You are <u>not</u> allowed to use a calculator.

(10 marks)

Topic : Whole Numbers

1.   What is one million, ten thousand, one hundred and one?

    (1)   1 101 101
    (2)   1 101 001
    (3)   1 100 101
    (4)   1 010 101   1 010 101   (**4**)

Topic : Operations of Whole Numbers

2.   Find the value of 960 000 ÷ 800.

    (1)   12
    (2)   120
    (3)   1200   960 000 ÷ 800 = 9600 ÷ 8
    (4)   12 000   = 1200   (**3**)

Topic : Operations of Whole Numbers

3.   49 − 14 ÷ 7 x 2 + 3 = _____

    (1)   1   49 − 14 ÷ 7 x 2 + 3
    (2)   13   = 49 − 2 x 2 + 3
    (3)   48   = 49 − 4 + 3
    (4)   51   = 45 + 3
                        = 48   1   (**3**)

4. $56 \div 2 + (5 - 3) \times 2 =$ _____

    (1)   60

    (2)   32

    (3)   28

    (4)   27

$56 \div 2 + (5 - 3) \times 2$
$= 56 \div 2 + 2 \times 2$
$= 28 + 4$
$= 32$

(2)

Topic : Fractions

5. 7 identical cakes were shared equally among 5 children.

What fraction of a cake did each child receive?

    (1) $\dfrac{1}{7}$

    (2) $\dfrac{5}{7}$

    (3) $1\dfrac{2}{5}$

    (4) $1\dfrac{4}{5}$

$\dfrac{7}{5} = 1\dfrac{2}{5}$

(3)

Topic : Fractions

6. Express $\dfrac{5}{8}$ as a decimal.

    (1)   1.6

    (2)   0.625

    (3)   0.375

    (4)   0.125

$5 \div 8 = 0.625$

$$\begin{array}{r} 0.625 \\ 8\overline{)5.000} \\ 48 \\ \hline 20 \\ 16 \\ \hline 40 \\ 40 \\ \hline 0 \end{array}$$

(2)

7. What is $\dfrac{9}{4}$ of 18?

(1) $\dfrac{1}{8}$

(2) 8

(3) $40\dfrac{1}{2}$

(4) $40\dfrac{2}{5}$

$\dfrac{9}{\underset{2}{4}} \times \dfrac{\overset{9}{18}}{1} = \dfrac{9 \times 9}{2 \times 1}$

$= \dfrac{81}{2}$

$= 40\dfrac{1}{2}$

(**3**)

8. $\dfrac{7}{8} \times \dfrac{11}{9} =$ _____

(1) $\dfrac{63}{88}$

(2) $\dfrac{72}{77}$

(3) $1\dfrac{5}{72}$

(4) $1\dfrac{25}{63}$

$\dfrac{7}{8} \times \dfrac{11}{9} = \dfrac{7 \times 11}{8 \times 9}$

$= \dfrac{77}{72}$

$= 1\dfrac{5}{72}$

(**3**)

9. The mass of a mobile phone is $\frac{7}{8}$ kg. Find the mass of 12 mobile phones.

    (1) $\frac{2}{21}$ kg

    (2) $\frac{7}{96}$ kg

    (3) $10\frac{1}{2}$ kg

    (4) $13\frac{5}{7}$ kg

$$\frac{7}{\underset{2}{8}} \times \frac{\overset{3}{\cancel{12}}}{1} = \frac{7 \times 3}{2 \times 1}$$

$$= \frac{21}{2}$$

$$= 10\frac{1}{2}$$

(**3**)

Topic: Fractions

10. The length of a ribbon was $\frac{3}{4}$ m long. $\frac{5}{12}$ of the ribbon was used for a parcel.

How much ribbon was used for the parcel?

    (1) $\frac{5}{16}$ m

    (2) $\frac{15}{16}$ m

    (3) $1\frac{1}{6}$ m

    (4) 5 m

$$\frac{5}{12} \times \frac{3}{4} = \frac{5 \times 3}{12 \times 4}$$

$$= \frac{15}{48}$$

$$= \frac{5}{16}$$

(**1**)

Questions **11** to **15** carry 2 marks each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Topic: Fractions

11. There are 60 children at a party. $\frac{3}{4}$ of the children are boys. How many girls are there at the party?
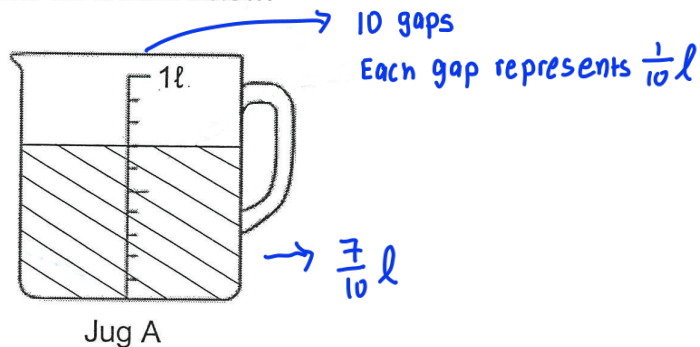
4u   3u   1u

$4u = 60$

$1u = 60 \div 4$

$= 15$

Ans: _____ 15 girls _____

Topic: Fractions

12. Jug A contained some water as shown below.

10 gaps
Each gap represents $\frac{1}{10}\ell$

1ℓ

$\frac{7}{10}\ell$

Jug A

$\frac{2}{5}$ of the water was poured out from Jug A. What was the volume of water poured out from the jug?

$$\frac{\overset{1}{\cancel{2}}}{5} \times \frac{7}{\cancel{10}\ 5} = \frac{1 \times 7}{5 \times 5}$$

$$= \frac{7}{25}$$

Ans: _____ $\frac{7}{25}$ _____ ℓ

Topic : Fractions

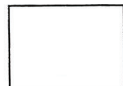13. 19 balloons are tied to the corridor with same distance between every 2 balloons.

$\frac{3}{5}$ m
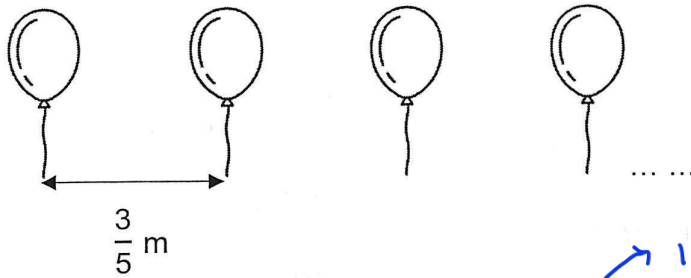
→ 18 gaps

Find the total distance from the first to the 19th balloon.

Leave your answer as a mixed number in its simplest form.

$$\frac{3}{5} \times \frac{18}{1} = \frac{3 \times 18}{5 \times 1}$$

$$= \frac{54}{5}$$

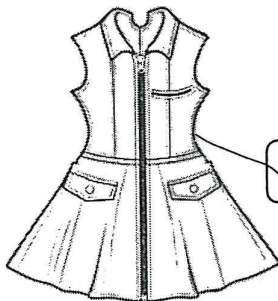$$= 10\frac{4}{5}$$

Ans: _____ $10\frac{4}{5}$ _____ m

Topic: Whole Numbers   **Concept: Repeated Identity**

14. Amanda had $238. Betty had $524. Each of them bought the same dress.

    The amount <u>Betty</u> left was <u>three times</u> as much money as what <u>Amanda</u> had
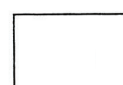
    3u   1u

    left. How much did the dress cost?
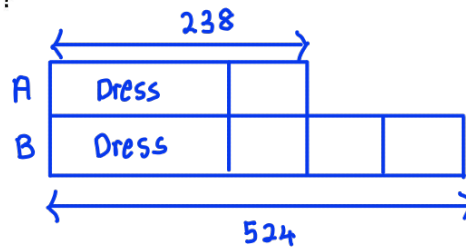
238

A	Dress		
B	Dress			

524

$$2u = 524 - 238$$
$$= 286$$
$$1u = 286 \div 2$$
$$= 143$$
$$Dress = 238 - 143$$
$$= 95$$

Ans: $ _____ 95 _____

Topic: Whole Numbers

15. Fedrick had $630. He had three times (3u) as much money as Gerald (1u) at first. Gerald received some money while Fedrick spent some money. The amount of money Gerald received (+2u) was twice as much money as the amount Fedrick spent (-1u). They had the same amount of money in the end. How much money did Fedrick spend?

$$
\begin{array}{ccc}
 & F & G \\
B & 630 & 630 \div 3 = 210 \\
C & -1u & +2u \\
A & 1p & 1p \\
\end{array}
$$

$$630 - 1u = 210 + 2u$$

$$3u = 630 - 210$$

$$= 420$$

$$1u = 420 \div 3$$

$$= 140$$

Ans: $ 140

For questions **16 to 18**, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in the brackets [ ] at the end of each question or part-question. (10 marks)

Topic: Money   2u   1u   Concept: NET Table

16. John has <u>twice</u> as many <u>20-cent coins</u> as <u>50-cent coins.</u> The total value of the 50-cent coins is 3400¢ more than the total value of the 20-cent coins. How many coins does John have altogether?

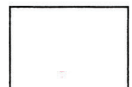|	20¢	50¢	Diff
N	2u	1u	
E	20	50	
T	40u	50u	10u

$$10u = 3400$$

$$1u = 3400 \div 10$$

$$= 340$$

$$3u = 340 \times 3$$

$$= 1020$$

Ans: __1020 coins__ [3]

17. A file cost \$3. A notebook cost \$12. Mrs Kavita bought a total of 40 files and notebooks. She paid \$255 in all. How many notebooks did she buy?

Assume all are files = 40 × 3

= 120

value difference = 12 - 3

= 9

Total value difference = 255 - 120

= 135

No. of notebooks = 135 ÷ 9

= 15

No. of files = 40 - 15

= 25

check: 15(12) + 25(3) = 255

Ans: __15 notebooks__ [3]
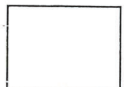
Topic : Whole Numbers   Concept: BCA – Unchanged Difference

18. Lina had 85 marbles, Nurul had 270 marbles and Matthew had 370 marbles.
After Nurul gave an equal number of marbles to Lina and Matthew, Matthew
had 4 times as many marbles as Lina. How many marbles did Nurul have left?

(handwritten annotations: −2u above Nurul; +1u above Lina; +1u above Matthew; 4p; 1p)

L	N	M	Diff (m – L)
85	270	370	285
+1u	−2u	+1u	
1p		4p	3p

$$3p = 285$$
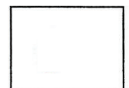
$$1p = 285 \div 3$$

$$= 95$$

$$1u = 95 - 85$$

$$= 10$$

$$2u = 10 \times 2$$

$$= 20$$

$$270 - 20 = 250$$

Ans: ___250 marbles___ [4]

End of Paper