

Rosyth School Term Assessment 2024 (Term 1) Mathematics Primary 6 Paper 1

| Name: | <u></u> | Register No. |
|--------|------------------|---------------------|
| Class: | Pr 6 | |
| Date: | 27 February 2024 | Parent's Signature: |

Total Time for Booklets A and B : 1 hour

BOOKLET A

Instructions to Pupils:

- 1. Do not open this booklet until you are told to do so.
- 2. Follow all instructions carefully.
- 3. Shade your answers in the Optical Answer Sheet (OAS) provided.
- 4. You are <u>not</u> allowed to use a calculator.
- 5. Answer all questions.

| Section | Maximum Mark | Marks Obtained |
|---------------------|--------------|----------------|
| Paper 1 (Booklet A) | 20 | |

* This booklet consists of <u>7</u> pages (including this cover page).

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

All diagrams in this paper are not drawn to scale unless stated otherwise. (20 marks)

- 1. There were 124 089 visitors to a tourist attraction last year. Express this number to the nearest thousand.
 - (1) 100 000
 - (2) 120 000
 - (3) 124 000
 - (4) 125 000
 - 2. What is the value of $10 \div 2000$?
 - (1) 200
 - (2) 20
 - (3) 0.05
 - (4) 0.005
 - Part of a scale is shown below.
 What is the value of the reading at X?



(Go on to the next page)

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4. Arrange the following fractions from the smallest to the largest:

$$\frac{5}{4}$$
, $1\frac{1}{7}$, $\frac{11}{10}$

| (1) | $1\frac{1}{7}$, | $\frac{11}{10}$, | $\frac{5}{4}$ |
|-----|-------------------|-------------------|----------------|
| (2) | $\frac{5}{4}$, | $\frac{11}{10}$, | $1\frac{1}{7}$ |
| (3) | $\frac{11}{10}$, | $\frac{5}{4}$, | $1\frac{1}{7}$ |
| (4) | $\frac{11}{10}$, | $1\frac{1}{7}$, | $\frac{5}{4}$ |

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- 5. The ratio of two different numbers is 3 : 2. The larger number is 60. What is the smaller number?
 - (1) 20
 (2) 24
 (3) 30
 - (4) 40
- 6. Mary collected 36 stamps. Her sister collected 12 fewer stamps than her. Find the ratio of Mary's number of stamps to her sister's number of stamps.
 - (1) 2:3
 - (2) ·3 : 1
 - (3) 3:2
 - (4) 3:4

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(Go on to the next page)

The figure below shows 10 identical cubes which are glued together to form a solid.



The whole solid, including the base, is then painted red. How many cubes have three of their faces painted red?

- (1)
 7

 (2)
 2

 (3)
 3

 (4)
 9
- 8. Lukman donated 20% of his savings and still had \$380 of his savings left. How much money did he donate?
 - (1) \$76
 - (2) \$95
 - (3) \$285
 - (4) \$304

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9. The parallelogram below is not drawn to scale. $\angle q$ is twice of $\angle p$. What is the value of $\angle p$?



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- (1) 120°
- (2) 90°
- (3) 60°
- (4) 30°

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(Go on to the next page)

7.

10. WX and YZ are straight lines.



Which of the following is true?

- (1) $\angle a = \angle b + \angle c$
- (2) $\angle d = \angle a + \angle b$
- (3) $\angle a + \angle b + \angle c = 180^{\circ}$
- (4) $\angle b + \angle c + \angle d = 180^{\circ}$

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11. The airmail rates to two countries are shown below.

| Mass step | Vietnam | Japan |
|-----------------------|---------|--------|
| . First 20 g | \$0.95 | \$1.55 |
| Every additional 10 g | \$0.25 | \$0.35 |

Wakeen sent a letter weighing 43 g to Vietnam and a letter weighing 10 g to Japan by airmail. How much did he pay altogether?

- (1) \$1.70
- (2) \$2.75
- (3) \$3.25
- (4) \$3.70

(____)

5

(Go on to the next page)

12. The table below shows the different courses some children in a swimming club are attending.

| | Boys | Girls |
|-----------------|------|-------|
| Beginner course | 6 | 8 |
| Advanced course | 10 | 16 |

What percentage of the boys in the club attend the advanced course?

(1) 10%

.

- (2) 25%
- (3) 37.5%
- (4) 62.5%

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13. JKLM is a parallelogram. \angle JML= 80° and \angle JOK = 120° and \angle JKM = 35°. Find \angle MJL.



- (1) 25°
- (2) 40°
- (3) 55°
- (4) 65°

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(Go on to the next page)

14. The figure below is made up of a circle A and a rhombus B. The area of the shaded part is $\frac{2}{5}$ of the area of A. The ratio of the area of the shaded part to the area of B is 3 : 8. What is the ratio of the area of the shaded part to the whole area of the figure?



- (1) 6:25
- (2) 6:31
- (3) 12:31
- (4) 5:13
- 15. The figure shows a trapezium ABCD where AD = CD and AD // BC. Find \angle ADC.



- (1) 39°
- (2) 74°
- (3) 102°
- (4) 141°

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Go on to Booklet B

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Rosyth School Term Assessment 2024 (Term 1) Mathematics Primary 6 Paper 1

| Name: | an construct of the construction of the | Register | No | - |
|-----------------------------------|---|----------|----|---|
| Class: Pr 6 | | | | |
| Date: 27 February 2024 | Parent's Signatu | re: | | - |
| Total Time for Booklets A and B : | 1 hour | | | |

BOOKLET B

Instructions to Pupils:

- 1. Do not turn over this page until you are told to do so.
- 2. Follow all instructions carefully.
- 3. Answer all questions.
- 4. Use a dark blue or black ballpoint pen to write your answers in the space provided for each question.
- 5. Do not use correction fluid/tape or highlighters.
- 6. You are <u>not</u> allowed to use a calculator.

| Section | Maximum Mark | Marks Obtained |
|---------------------|--------------|----------------|
| Paper 1 (Booklet B) | 25 | |

* This booklet consists of <u>8</u> pages (including this cover page).

Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided. Do not write in this space For questions which require units, give your answers in the units stated. . All diagrams in this paper are not drawn to scale unless stated otherwise. (5 marks) 16. Find the value of $\frac{5}{6} + \frac{1}{9}$. Ans: _____ What is the missing number in the box? 17. 12 : 15 = : 35 Ans:_____ Express 7.3 as a percentage. 18. Ans: _____ % 2 (Go on to the next page)



| Questions 21 to 30 carry 2 marks each. Show your workings clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams in this paper are not drawn to scale unless stated otherwise. (20 marks) | | | | | | | |
|--|---|-----------|--|--|--|--|--|
| | | | | | | | |
| | - | - | | | | | |
| ature of a filter-a | Ans: | | | | | | |
| 22. | There are some pens in a container. $\frac{1}{3}$ of the pens are red. After Mr Lim added 15 red pens into the container, $\frac{4}{9}$ of the pens in the container are red. How many red pens did Mr Lim have in the container at first? | | | | | | |
| | Ans: | | | | | | |
| | 4 (Go on to the ne | ext page) | | | | | |

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(Go on to the next page)

In the diagram below, the length of DE is twice the length of EA. G is the Do not write 25. mid-point of AB and AE = AG. EFG and DCH are isosceles triangles. What in this space fraction of the figure is shaded? Give your answer in the simplest form. G В Н F ,Ε С D Ans: The library had 17 shelves with an equal number of books on each shelf. Siti 26. removed all the books from 8 of the shelves and placed them equally onto the remaining shelves. She found that these remaining shelves had 24 more books each. How many books were on each shelf at first? Ans:

(Go on to the next page)

| 27. | Containers A, B and C had an equal amount of water at first. When all the bo not write water in A and 400 ml of water in C was transferred into B, the ratio of the amount of water in B to the amount of water in C became 8 : 1. How much water was there in each container at first? |
|-----|---|
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| | Ans:ml |
| 28. | A school has 1500 pupils. 40% of them are girls. 60% of the boys go to school by bus. How many boys go to school by bus? |
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| | Ans: |
| | |
| | 7 (Go on to the next page) |
| | |

A triangle PQR is drawn inside a box. By joining the dots on the grid with straight lines, draw a rectangle QRST such that its area is 2 times the area of triangle ABC.

| | | | ~ I i | | | | | | | | | | | | - | | | | |
|---|--------|---|-------|----------|---|----|----|----------|----|---------------|----|----|----|----|---|---|--------|---|--|
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| 9 | ې | Ģ | 9 | • | Q | φ | ۵ | ٠ | ¢ | 3 | 8 | ٥ | ۰ | ٠ | ٠ | 9 | ð | 9 | |
| • | т С | 3 | • | × | | | ۰, | 19 8. | ୍ଷ | ٠ | 8 | ្ល | 9 | \$ | • | 9 | 9 | 8 | |
| 9 | 3 | 9 | A | ٠ | 4 | a | a | 8 | .0 | 8 | 9 | 9 | ¢ | 4 | • | • | 9 | 9 | |
| 6 | • | | 8 | 8 | + | \$ | ۵ | ۰ | Ģ | ٠ | ¢ | 3 | 6 | ÷ | ٠ | 9 | ۰ | 9 | |
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| | 9 | | • | 9 | | ø | ¢ | ø | ø | ¢ | 9 | ø | ø | e | • | ¢ | a | ٩ | |
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| | 9 | 4 | | • | | ą | • | • | • | 9 | 9 | ¢ | ۵ | | ٠ | э | e e | æ | |
| a | ۵ | 0 | 3 | 9 | • | æ | ۵ | 9 | ٩ | ø | ø | ø | ş | 0 | 0 | 8 | 9 | 6 | |

30. Every month, Gary saved \$300 of his salary and spent the rest. In December, his spending increased by 4% and he only managed to save \$240. How much was his salary?



End of paper Have you checked your work?



Rosyth School Term Assessment 2024 (Term 1) Mathematics Primary 6 Paper 2

| Register No. |
|----------------|
| |
| t's Signature: |
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Instructions to Pupils:

- 1. Do not turn over this page until you are told to do so.
- 2. Follow all instructions carefully.
- 3. Answer all questions.
- 4. Use a dark blue or black ballpoint pen to write your answers in the space provided for each question.
- 5. Do not use correction fluid/tape or highlighters.
- 6. The use of an approved calculator is allowed.

| Questions | Maximum Mark | Marks Obtained |
|-----------|--------------|----------------|
| Q 1 to 5 | 10 | |
| Q 6 to 17 | 45 | |

| Section | Maximum Mark | Marks Obtained |
|---------|--------------|----------------|
| Paper 1 | 45 | |
| Paper 2 | 55 | |
| Total | 100 | |

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* This booklet consists of <u>15</u> pages (including this cover page)

Questions 1 to 5 carry 2 marks each. Show your working clearly in the space Do not write in this space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks) All diagrams in this paper are not drawn to scale unless stated otherwise. The semicircle below has a diameter of 15 cm. 1. Using the calculator value of π , find its area, correct to 2 decimal places. 15 cm cm² Ans: A choir has 40 male members and 65 female members. 15% of the male 2. members and 20% of the female members are students. What percentage of the members are students? Ans: (Go on to the next page) 2

Do not write A school stage is decorated with a banner made up of 263 red and white triangles. З. in this space One end of the banner is shown below. There are at least 3 red triangles between any 2 white triangles. What is the largest possible number of white triangles on the banner? Ans: Ahmad, Banu and Caili had a total of 725 marbles. Bala had four times as many 4. marbles as Ahmad. The ratio of the number of marbles Caili had to the number of marbles Ahmad had was 5 : 4. How many marbles did Banu have? Ans: (Go on to the next page) 3



For Questions 6 to 17, show your working clearly in the space provided for each question and write your answers in the spaces provided. The number of marks available is shown in brackets [] at the end of each question or part-question. For questions which require units, give your answers in the units stated. (45 marks)

Do not write in this space

All diagrams in this paper are not drawn to scale unless stated otherwise.

6. Gina had 56 more stamps than John. When John gave Gina 22 of his stamps, Gina had 5 times as many stamps as John. How many stamps did John have at first?

Ans: _____[3]

(Go on to the next page)

| 7. | Jean, Nancy and Francis had a number of sweets in the ratio 5 : 2 : 6. After Francis gave 30% of his sweets to Jean and Nancy, the number of sweets that Nancy had increased by 50%. What is the ratio of sweets Jean had to the number of sweets Nancy had in the end? | Do not write in this space |
|----|--|-------------------------------|
| | Ans:[3] | |
| 8. | Mrs Teo and Mr Lim bought the same type of washing machine from a store. Mrs Teo paid \$720 for her washing machine after a 20% discount. However, Mr Lim only paid \$585 for his washing machine after the discount. What was the percentage discount given to Mr Lim? | |
| | Ans:[3] | |
| | 6 (Go on to the next | ⊥ page) |

9. In the figure below, a rectangular piece of paper is folded at the top 2 corners.W Do not write in this space





Ans:

[3]

10. In the figure below, triangle AXB and triangle AYB are drawn within a square ABCD. The area of the square is 100 cm². The length of ST is $\frac{2}{5}$ of the length of AB. Find the total area of the shaded parts.





[3]

Ans:

11. Bag A had 1.9 kg of rice and Bag B had 2.28 kg of rice. After an equal mass of rice was taken from both bags, the mass of rice in Bag A became 30% of the total mass of rice left in both bags. Find the total mass of rice removed, in kg, from both bags.

Do not write in this space









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14. A band held a two-night concert. 150 more male adults than female adults attended the concert on the first night. For the second night concert, the number of female adults decreased by 15% and the number of male adults increased by 30%. A total of 1270 adults attended the concert on the second night. Find the total number of adults who attended the concert over two nights.

Do not write in this space





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| | - | Do not urito |
|----------|---|---------------|
| . A 2 | dam had some money. He spent $\frac{2}{5}$ of it on 3 identical pens. He bought another of such pens and 15 identical erasers with the rest of his money. | in this space |
| (8 | What fraction of his money was spent on the 15 erasers? Express your answer in its simplest form. | |
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| | | |
| | - | |
| | Ans: (a) [2] | |
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| | | |
| | Ans: (b) [3] | |
| - | Ans: (b) [3] | page) |
| | Ans: (b) [3] | page) |

| Eddimiter of the function of give in Formic order. | |
|---|---|
| (a) How many girls are there in Tennis Club? | |
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| | |
| σ. | |
| | |
| | |
| Ans: (a) [2] | |
| | |
| (b) Some girls joined the Tennis Club. As a result, 32% of the students in the Tennis Club were boys. What is the ratio of the total number of boys to the total number of girls now? | |
| | |
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| |] |
| Ape: (b) [3] | |
| | l |
| End of paper | |

| SCHOOL : ROSYTH SCHOOL LEVEL : PRIMARY 6 SUBJECT : MATH TERM : 2024 WA1 | |
|--|---------------------------------|
| | |
| | $\dot{\mathbf{O}}$ \mathbf{O} |
| Q1 Q2 Q3 Q4 Q5 | Q6 Q7 Q8 Q9 Q10 |
| <u>3 4 2 4 4</u> 011 012 013 014 015 | |
| 3 4 4 1 3 | |
| - | |
| Q16) 17 | |
| 18 | \cap |
| 017) 29 | |
| (17) 20 (12) 720% | |
| | |
| Q19) | |
| | |
| Q20) 60° | |
| Q21) 8 | |
| Q22) 25 | |
| Q23) 25cm | |
| Q24) | |
| | |
| a a a a anna ann ann ann ann ann ann an | |
| 3 A set of the second process is by process of the second process is a set of the second process is a set of the second process is a set of the second process is a set of the second process is a process of the second process is a set of the second process is a process of the second process is a set of the second process is a process of the second process is a set of the second process is a process of the second process is a set of the second process is a process of the second process is a set of the second process is a process of the second process is a second process is a process of the second process is a second process is a process of the second process is a second process is a process of the second process is a second process is a process of the second process is a second process is a process of the second process is a second process is a process of the second process is a second process is a process of the second process is a second process is a process of the second process is a second process is a process of the second process is a second process is a process of the second process is a second process is a process of the second process is a second process is a process of the second process is a second process is a second process is a process is a second process is a second process is a second process is a process is a second process is | |
| an a state and a s | |
| 7.1cm | |
| Q25) ½ | |
| Q26) 27 | |
| (Q27) 600mi (Q28) 540 | |
| | |

Pg 1



Word Problem Worksheet & Solutions Rosyth Paper 2 P6 Mathematics WA1 2024 Show your working clearly in the space provided for each question and write your answers in the spaces provided. Questions can be found at the end of the worksheet.

- 1. Diameter = 16 cm Radius = 15 ÷ 2 = 7.5 cm Area = 3.14 x 7.5 x 7.5 x ½ ≈ 88.36 cm²
- 2. Male students = $\frac{15}{100} \times 40 = 6$ Female students = $\frac{20}{100} \times 65 = 13$ Number of students = 6 + 13 = 19Total members = 40 + 65 = 105Percent of students = $\frac{19}{105} \times 100 = 18.10$ %
- 3. Number of groups = $263 \div 4 = 65 \text{ R3}$ Number of white triangle = $65 \times 1 + 1 = 66$

| 4. | | Ahmad | Banu | Caili |
|----|-----------------|----------------|---------------|--------|
| | Ratio | 4 | | 5 |
| | Banu | | 4x4 = 16 | |
| | xu | 4u | 16u | 5u |
| | Total = 4u + 16 | 3u + 5u = 25u | | |
| | 25u = 725 | | | |
| | u = 725 ÷ 25 = | 29 | | |
| | 16u = 16 x 29 : | = 464 = number | of marbles Ba | nu had |
| | | | | |



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6. <u>Method 1</u>

| | | | 4u | | | |
|-------------|---|-------------|----------------------------|------------|--|--|
| Gina | 1u | 22 | 56 | 22 | | |
| John | 1u | 22 | | \uparrow | | |
| | | | | | | |
| 4u = 22 + 5 | 56 + 22 = 1 | 00 | | | | |
| u = 100 ÷ 4 | 4 = 25 | | | | | |
| Number of | John's sta | mps at firs | t = 1u + 22 = 25 + 22 = 47 | | | |
| Method 2 | | | | | | |
| | (| Gina | John | | | |
| At first | ι | ı + 56 | u | | | |
| Gave | | | -22 | | | |
| Receive | 4 | -22 | | | | |
| In the end | ι | ı+78 | u-22 | | | |
| | 5 | Бр | р | | | |
| Difference | = u + 78 – | (u-22) = 10 | 00 | | | |
| Difference | Difference = $5p - p = 4p$ | | | | | |
| 4p = 100 | | | | | | |
| p = 100 ÷ 4 | $p = 100 \div 4 = 25$ | | | | | |
| Number of | Number of John's stamp at first = p + 22 = 25 + 22 = 47 | | | | | |
| | | | | | | |

Ans: 47

7.

| | Jean | Nancy | Francis |
|------------------------------------|---------|---------|---------------|
| Ratio at first (x5) Gave 30% | 5 25 | 2 10 | 6 30 -9 |
| Receive 50% Receive the rest | +4 | +5 | |
| In the end | 29 | 15 | 21 |

Ratio of Jean's sweets to Nancy's sweets = 29 : 15

Ans: 29:15

8. 80% paid \rightarrow \$720 1% \rightarrow \$9 100% \rightarrow \$9 x 100 = \$900 Discount \rightarrow \$900 - \$585 = \$315 Percent discount $\rightarrow \frac{315}{900}$ x 100% = 35% 9. ∠ZXW = (90 - 65) x 2 = 50° ∠WXY = 180 - 50 - 28 - 28 = 74°

Ans: 74°

10. $ST = \frac{2}{5} \times 10 = 4 \text{ cm}$ Area of ABS = $6 \times 10 \div = 30 \text{ cm}^2$ Area of AYB = $\frac{1}{2} \times 100 = 50 \text{ cm}^2$ Area of AXB = $\frac{1}{2} \times 100 = 50 \text{ cm}^2$ Shaded area = $(50 - 30) + (50 - 30) = 40 \text{ cm}^2$

Ans: 40 cm²

| 11. | | Bag A | Bag B | Difference |
|-----|--|----------------|------------|------------|
| | Mass of rice | 1.9kg | 2.28 kg | 0.38kg |
| | After removal | 30% | 70% | 40% |
| | $40\% ightarrow 0.38 \ \text{kg}$ | | | |
| | $1\% \rightarrow 0.38 \div 40 = 0$ | 0.095 kg | | |
| | $30\% \rightarrow 0.095 \text{ x } 30$ | = 0.285 kg | | |
| | Amount removed = | 1.9 – 0.285 = | = 1.615 kg | |
| | Total removed = 1.6 | 615 x 2 = 3.23 | 3 kg | |
| | | | | |

Ans: 3.23 kg



Ans: a) 94°

b) 22°

13. a)

1 group = $6 \times 0.10 + 5 \times 0.20 = 1.60$ Number of groups = $88 \div 1.60 = 55$ Number of 10-cents coins = $55 \times 6 = 330$ b) Value of 20-cents coins in Diagram 2 = $55 \times 5 \times 0.2 = 55$

Ans: a) 330

b) \$55

14.

| First Night | | | | | | |
|-----------------------------|----------|--|-----|-----|----|--|
| Male | 100% 150 | | | | | |
| Female 100% | | | | 1 | | |
| Second Night – Total = 1270 | | | | | | |
| Male | 100% | | 150 | 30% | 45 | |
| Female | 85% | | | | | |

100% + 30% + 85% = 1270 - 150 - 45 = 1075 215% = 1075 1% = 5 100% = 500First Night total = 100% + 100% + 150 = 500 + 550 + 150 = 1150Total for 2 nights = 1270 + 1150 = 2420

Ans: 2420

*Challenging

15. a) $\angle EFH = 45^{\circ}$ $\angle HFK = 60 - 45 = 15^{\circ}$ b) $\angle KFG = 45 - 15 = 30^{\circ}$ $\angle FKG = \frac{1}{2} \times (180 - 30) = 75^{\circ}$

(Isosceles triangle)

Ans: a) 15°

b) 75°

16. a)

(3 x 5u) Let total some of money = 15uAmount for 3 pens = $\frac{2}{5} \times 15u = 6u$ Amount for 1 pen = $6u \div 3 = 2u$ Amount for 2 pens = $2u \times 2 = 4u$ Remainder = 15u - 6u = 9uAmount for erasers = 9u - 4u = 5uFraction of money on erasers $=\frac{5u}{15u}=\frac{1}{3}$ b) $\frac{1}{3} \rightarrow 15$ erasers $\frac{3}{3}$ \rightarrow 15 x 3 = 45 erasers Number of groups of 6 erasers = $45 \div 6 = 7 \text{ R} 3$ Number of free erasers = 7Total number of erasers = 45 + 7 = 52Ans: a) $\frac{1}{3}$ b) 52

*Challenging

17. a)

