

NANYANG PRIMARY SCHOOL  
FIRST CONTINUAL EXAMINATION  
2014  
PRIMARY 6  
MATHEMATICS  
PAPER 1  
DURATION: 50 MINUTES

Booklet A	/ 20
Booklet B	/ 20

Paper 1 Total: / 40
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Name: \_\_\_\_\_ (       )

Class: Primary 6 (       )

Date: \_\_\_\_\_

Parent's Signature: \_\_\_\_\_

Any query on marks awarded should be raised by **13 March 2014**. We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

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ANSWER ALL QUESTIONS.

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**PAPER 1 (BOOKLET A)**

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.

(20 marks)

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1 Simplify  $11a + 15 - 2a - 8$ .

- (1)  $5a + 7$
- (2)  $5a + 23$
- (3)  $9a + 7$
- (4)  $9a + 23$

2 What is the value of  $5200 \div 20$ ?

- (1) 26
- (2) 260
- (3) 2600
- (4) 26 000

3 Find the value of  $26 - 3 \times 2 + (8 + 8 \div 2)$ .

(1) 28

(2) 32

(3) 54

(4) 58

4 Which of the following fractions are the equivalent fractions of  $\frac{4}{12}$ ?

$$\frac{1}{3}, \frac{1}{4}, \frac{2}{8}, \frac{3}{9}$$

(1)  $\frac{1}{3}$  and  $\frac{3}{9}$

(2)  $\frac{1}{3}$  and  $\frac{2}{8}$

(3)  $\frac{1}{4}$  and  $\frac{3}{9}$

(4)  $\frac{1}{4}$  and  $\frac{2}{8}$

5 What number is 4.63 less than 6.96?

(1) 2.06

(2) 2.33

(3) 11.32

(4) 11.59

6 What percentage of 2 kg is 400 g?

(1) 20%

(2) 50%

(3) 200%

(4) 500%

7 Find the value of  $\frac{5}{9} - \frac{1}{3}$

(1)  $\frac{2}{9}$

(2)  $\frac{4}{9}$

(3)  $\frac{4}{6}$

(4)  $\frac{8}{9}$

8 The total length of 30 rods is 6 m. What is the average length of the rods?

(1) 0.2 cm

(2) 2 cm

(3) 5 cm

(4) 20 cm

9 Find the value of  $\frac{12}{7} \times 21$

(1) 35

(2) 36

(3) 3

(4) 4

10 Mary and John were given  $\frac{5}{6}$  of a pizza. They shared the pizza equally. What fraction of the pizza did each of them receive?

(1)  $\frac{5}{12}$

(2)  $\frac{10}{12}$

(3)  $\frac{10}{6}$

(4)  $\frac{12}{5}$

11 What is the missing number in the box below?

$$0.625 \times 100 = \boxed{\phantom{000}} \div 10$$

- (1) 6.25
- (2) 62.5
- (3) 625
- (4) 6250

12 The number of children increased by 15 to 35 at a party. What was the percentage increase in the number of children?

- (1) 30%
- (2)  $42\frac{6}{7}\%$
- (3)  $57\frac{1}{7}\%$
- (4) 75%

13 The dimensions of a rectangular yard are  $4\frac{2}{3}$  m and 6 m. What is the area of the yard?

(1)  $10\frac{2}{3}$  m<sup>2</sup>

(2) 16 m<sup>2</sup>

(3)  $24\frac{2}{3}$  m<sup>2</sup>

(4) 28 m<sup>2</sup>

14 The average age of Elvin's friends was 11 years old. Elvin was 7 years old. After Elvin joined the group, the average age became 10 years old. How many children were there in the group after Elvin joined in?

(1) 5

(2) 6

(3) 3

(4) 4



15 Felix bought 5 sacks of flour for his bakery. Each sack of flour was 25 kg. He used 73 kg and packed the remaining flour into 4 smaller packets of equal mass. What was the mass of each smaller packet of flour?

(1) 13 kg

(2) 38 kg

(3) 48 kg

(4) 52 kg

Name: \_\_\_\_\_ (      ) Class: Pr 6 (      )

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**PAPER 1 (BOOKLET B)**

Questions **16** to **25** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

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**16** Find the value of  $18 + 5b - 2b - 4$  when  $b = 3$ .

Ans: \_\_\_\_\_

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**17** What is the product of 67 and 8?

Ans: \_\_\_\_\_

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18 Find the value of  $\frac{3}{7} \times \frac{7}{12}$ .

Express your answer as a fraction in its simplest form.

Ans: \_\_\_\_\_

---

19 Express 30 tens, 62 hundredths and 8 thousandths as a decimal.

Ans: \_\_\_\_\_

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20 Round off 23 890 to the nearest thousand.

Ans: \_\_\_\_\_

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21 Find the value of  $4 \div \frac{6}{7}$ .

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

Ans: \_\_\_\_\_

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22 Given that  $35 \times 9 = 315$ , what is the missing number in the box below?

$$35 \times \boxed{?} = 31.5$$

Ans: \_\_\_\_\_

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23 Mr Yan walked 632 m from his house to Town A to visit a friend. He then walked back 314 m towards his house along the same route to Tella Supermarket. What was the distance between Mr Yan's house and Tella Supermarket?

Ans: \_\_\_\_\_ m

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- 24 Eva had \$150 at first. She spent 30% of her money on a wallet. How much did she spend?

Ans: \$ \_\_\_\_\_

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- 25 A tank was 70% full of water. When 15 l of the water leaked out, there were 34 l of water left in the tank. What was the capacity of the tank?

Ans: \_\_\_\_\_ l

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Questions 26 to 30 carry 2 marks each. Show your working 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.

(10 marks)

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- 26 After selling 350 kg of rice, Mr Tan had  $\frac{3}{4}$  of the rice left. He then gave away the remaining rice equally to 5 charitable organisations. How much rice did each organisation receive?

Ans: \_\_\_\_\_ kg

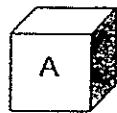
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- 27 Xian Zhong saved 40% of his salary every month. When Xian Zhong's salary was reduced by 10%, his savings became \$360. What was his salary at first?

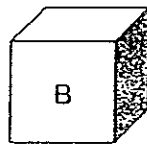
Ans: \$ \_\_\_\_\_

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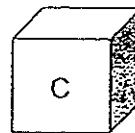
- 28 The average mass of the 3 boxes shown below is  $\frac{9}{20}$  kg. Given that the masses of Boxes A and B are  $\frac{1}{4}$  kg and 0.6 kg, what is the mass of Box C?



$\frac{1}{4}$  kg



0.6 kg



? kg

Ans: \_\_\_\_\_ kg

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- 29 There were  $25c$  red marbles in a container.  $\frac{1}{5}$  of the red marbles were taken out. 15 blue marbles were then placed into the container. How many marbles were there in the container in the end? Express your answer in terms of  $c$ .

Ans: \_\_\_\_\_

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- 30 Every 2<sup>nd</sup> customer is given a toy and every 4<sup>th</sup> customer is given a free ice-cream while every 9<sup>th</sup> customer is given a free apple pie at the newly-opened Yummy Burger. Kylar received all the 3 free gifts just by visiting the restaurant once. Given that he was among the first 50 customers, what customer number was Kylar?

Ans: \_\_\_\_\_

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NANYANG PRIMARY SCHOOL  
FIRST CONTINUAL EXAMINATION  
2014  
PRIMARY 6  
MATHEMATICS  
PAPER 2

DURATION: 1 HOUR 40 MINUTES

Paper 2 Total	/ 60
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GRAND TOTAL	/ 100
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Name: \_\_\_\_\_ (       )

Class: Primary 6 (       )

Date: \_\_\_\_\_

Parent's Signature: \_\_\_\_\_

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**PAPER 2**

Questions 1 to 5 carry 2 marks each. Show your working 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.

(10 marks)

- 
- 1 Mrs Verlu's annual income is \$26 400. She puts 20% of her annual income in a bank which pays 4% interest per year. How much interest will Mrs Verlu receive at the end of the year?

Ans. \$ \_\_\_\_\_

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- 2 Chef Lee bought  $6\frac{1}{4}$  kg of fish. He used  $2\frac{5}{8}$  kg of it to cook curry fish. He then bought another  $2\frac{3}{5}$  kg of fish. What was the mass of the fish he had in the end?

Ans: \_\_\_\_\_ kg

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- 3 4 cups and 3 bowls cost \$12. 3 cups and 1 bowl cost \$7. Find the cost of 1 cup.

Ans: \$ \_\_\_\_\_

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- 4 The average of seven numbers is 56. 1 is added to the first number, 2 is added to the second number, 3 is added to the third number and so on, up to the seventh number. Find the new average.

Ans: \_\_\_\_\_

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- 5 Brienna wants to mark some crosses on the outline of a circle as shown in the diagram below. The crosses are evenly spaced out and the 5<sup>th</sup> cross is directly opposite the 14<sup>th</sup> cross. Find the number of crosses that Brienna can mark on the outline of the circle.

Ans: \_\_\_\_\_

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For questions 6 to 18, 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.

(50 marks)

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- 6 A soft plastic sheet with a thickness of 0.24 cm is folded so that it is twice as thick after each fold.
- (a) How thick is the plastic sheet after 2 folds?
- (b) What is the greatest number of folds needed for the thickness of the plastic sheet to be not more than 16 cm thick?

Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]

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- 7 A delivery company charges a fixed amount of \$28 for delivery of any parcel weighing not more than 10 kg. It charges an extra amount of  $p$  cents for every extra kilogram the parcel weighs. Mrs Pillay wants to deliver a parcel of 8 kg and a parcel of 12 kg. How much does she have to pay the delivery company in total in terms of  $p$ ? Express your answer in dollars.

Ans: \_\_\_\_\_ [3]

8 There was  $\frac{9}{10}$  l of alcohol in a beaker.  $\frac{2}{3}$  of it was used in an experiment. The remaining volume of the alcohol was poured into 6 test tubes each of equal volume.

(a) What was the volume of alcohol used in the experiment?

(b) What was the volume of alcohol in each test tube?  
Express your answer in *ml*.

Ans: (a) \_\_\_\_\_ [1]

(b) \_\_\_\_\_ [2]

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- 9 Mr Osman bought 30 watches. Given a discount of 25%, he paid for 20 female watches at \$120 each and 10 male watches at \$90 each. How much did the watches cost before the discount?

Ans: \_\_\_\_\_ [3]

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- 10 Lendy paid \$364 for some pairs of trousers and shirts. A shirt cost \$28 and a pair of trousers cost 3 times as much as a shirt. He bought 5 more shirts than trousers. How many pairs of trousers did he buy?

Ans: \_\_\_\_\_ [3]

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11 There were 420 visitors at the Arts Museum.  $\frac{2}{7}$  of them were adults.

The rest were children.  $\frac{3}{8}$  of the adults were men and  $\frac{2}{5}$  of the

children were girls.

(a) How many women were there at the museum?

(b) How many more boys than adults were there?

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]

- 12 Bingwei has some coins in his savings box. There are 15 fewer 50-cent coins than 20-cent coins. The total value of the coins is \$21.90. Find the total number of coins Bingwei has in his savings box.

Ans: \_\_\_\_\_ [4]

- 13 There were 36 tulips, 48 roses and 60 carnations in a shop at first. When 39 more flowers were added, the number of roses was increased by 25% and the number of carnations was increased by 30%. What was the percentage increase in the number of tulips?

Ans: \_\_\_\_\_ [4]

- 14 Mrs Lucien started her journey with 22.8 l of petrol in the tank. After travelling for a distance, she found that there was only 3.8 l of petrol left. She refilled \$48 worth of petrol at 80¢ per litre. At the end of her journey, 10.8 l of petrol was left in the tank. 0.2 l of petrol was needed for every 1 km. What was the total distance Mrs Lucien covered?

Ans: \_\_\_\_\_ [4]

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15 Study the pattern below.

$$1 + 1$$

$$1 + 2 + 2 + 1$$

$$1 + 2 + 3 + 3 + 2 + 1$$

$$1 + ( \quad ) + ( \quad ) + ( \quad ) + ( \quad ) + ( \quad ) + ( \quad ) + 1$$

- (a) Complete the pattern of the 4<sup>th</sup> line by writing your answers in the brackets provided above. [1]
- (b) What is the sum of numbers in the 5<sup>th</sup> line?

(c) Which line has a sum of 110?

Ans: (b) \_\_\_\_\_ [2]

(c) \_\_\_\_\_ [2]

- 16 Tom's allowance is \$15 more than Jack's allowance each week. Each of them spends \$12 per week and saves the rest. When Tom saves \$161, Jack saves \$56. How much is Tom's weekly allowance?

Ans: \_\_\_\_\_ [5]

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- 17 The mass of the flour in Sack A was  $\frac{2}{5}$  the mass of the flour in Sack B.

After adding 200 g of flour into Sack A and 2 kg 400 g of flour into Sack

B, the mass of the flour in Sack A was  $\frac{1}{5}$  the mass of flour in Sack B.

- (a) What was the mass of the flour in Sack A at first?
- (b) What was the mass of the flour in Sack B in the end?  
Express your answer in kg and g.

Ans: (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [2]

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18 Benny, Hamid and Anbu decided to share and buy a present for their friend. Benny agreed to contribute 30% of the cost of the present while Hamid would contribute 40% of the remaining amount. The balance would be paid by Anbu. The cost of the present they intended to buy increased by 25%. As a result, Benny had to pay \$45 for his share.

(a) What was the cost of the present before the increase?

(b) How much did Anbu have to pay in the end?

Ans: (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [2]

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**END OF PAPER**



## Exam Paper 2014 Answer Sheet

School: NANYANG PRIMARY SCHOOL  
Subject: PRIMARY 6 MATHEMATICS  
Term: CA1

### Paper 1

1)	3	6)	1	11)	3
2)	2	7)	1	12)	4
3)	2	8)	4	13)	4
4)	1	9)	2	14)	4
5)	2	10)	1	15)	1

16. 23

17. 536

18.  $\frac{1}{4}$

19. 300.628

20. 24000

21.  $4\frac{2}{3}$

22. 0.9

23. 318

24. 45

25. 70

26.  $350 \times 3 = 1050$   
 $1050 \div 5 = 210$

27. Last time  $\rightarrow 100\% \times \frac{4}{10} = 40\%$   
Now  $\rightarrow 90\% \times \frac{4}{10} = 36\% \rightarrow \$360$   
1%  $\rightarrow \$10$   
100%  $\rightarrow \$1000$

28.  $450 \times 3 = 1350$   
 $1350 - 250 - 600 = 500\text{g} = 0.5\text{kg}$

29.  $25c \times \frac{1}{5} = 5c$   
 $25c - 5c = 20c$   
 $20c + 15 = 20c + 15$

30. Multiple of 2: 2, 4, 6, 8, ....., 36  
 Multiple of 4: 4, 8, 12, 16, ....., 36  
 Multiple of 9: 9, 18, 27, 36

## Paper 2

- $\frac{20}{100} \times \$26400 = \$5280$   
 $\frac{4}{100} \times \$5280 = \$211.20$
- $6\frac{1}{4} - 2\frac{5}{8} + 2\frac{3}{5} = 6\frac{9}{40}$
- $4c + 3b \rightarrow \$12$   
 $3c + 1b \rightarrow \$7 \text{ (x3)}$   
 $9c + 3b \rightarrow \$21$   
 $4c + 3b \rightarrow \$12$   
 $\$21 - \$12 = \$9$   
 $5c \rightarrow \$9$   
 $1c \rightarrow \$1.80$
- $56 \times 7 = 392$   
 $1 + 2 + 3 + 4 + 5 + 6 + 7 = 28$   
 $392 + 28 = 420$   
 $420 \div 7 = 60$
- $8 + 8 + 2 = 18$
- (a) 1 fold  $\rightarrow 0.24 \times 2 = 0.48$   
 2 folds  $\rightarrow 0.48 \times 2 = 0.96\text{cm}$   
 (b) 3 folds  $\rightarrow 0.96 \times 2 = 1.92$   
 4 folds  $\rightarrow 1.92 \times 2 = 3.84$   
 5 folds  $\rightarrow 3.84 \times 2 = 7.68$   
 6 folds  $\rightarrow 7.68 \times 2 = 15.36$
- 1 extra kg  $\rightarrow p \text{ cents} = \frac{p}{100}$   
 8kg  $\rightarrow \$28$   
 12kg  $\rightarrow \$28 + \frac{2p}{100}$   
 $\$28 + \$28 + \frac{2p}{100} = \$(56 + \frac{2p}{100})$
- (a)  $\frac{9}{10}l = 900\text{ml}$   
 $900 \times \frac{2}{3} = 600\text{ml}$   
 (b)  $(900 - 600) \div 6 = 50\text{ml}$
- $120 \times 20 = 2400$   
 $90 \times 10 = 900$   
 $2400 + 900 = 3300$   
 $3300 \div 75 \times 100 = \$4400$
- $S \rightarrow \$28$   
 $T \rightarrow \$84$   
 $\$364 \div (\$28 \times 5) = \$224$

$$\begin{aligned} \$28 + \$84 &= \$112 \\ \$224 \div \$112 &= 2 \end{aligned}$$

$$\begin{aligned} 11. (a) \text{ Women} &\rightarrow 420 \times \frac{2}{7} = 120 \\ &120 \times \frac{5}{8} = 75 \\ (b) \text{ Adults} &\rightarrow 420 \times \frac{2}{7} = 120 \\ \text{Boys} &\rightarrow 420 \times \frac{5}{7} = 300 \\ 300 \times \frac{3}{5} &= 180 \text{ (Boys)} \\ 180 - 120 &= 60 \end{aligned}$$

$$\begin{aligned} 12. 20 \text{ cents} \times 15 &= 300 \text{ cents} \\ \$21.90 &= 2190 \text{ cents} \\ 2190 \text{ cents} - 300 \text{ cents} &= 1890 \text{ cents} \\ 50 \text{ cents} + 20 \text{ cents} &= 70 \text{ cents} \\ 1890 \text{ cents} \div 70 \text{ cents} &= 27 \\ (27 \times 2) + 15 &= 69 \end{aligned}$$

$$\begin{aligned} 13. T &\rightarrow 36 \\ 100\% &\rightarrow 125\% \\ R &\rightarrow 48 \rightarrow 60 \\ 100\% &\rightarrow 130\% \\ C &\rightarrow 60 \rightarrow 78 \\ 36 + 48 + 60 &= 144 \\ 144 + 39 &= 183 \\ 183 - 60 - 78 &= 45 \\ 45 - 36 &= 9 \\ \frac{9}{36} &\rightarrow 25\% \end{aligned}$$

$$\begin{aligned} 14. 22.8 - 3.8 &= 19 \\ \$48 \div 80 \text{ cents} &= 60 \\ 63.8 \text{ (after refill)} & \\ 63.8 - 10.8 &= 53 \\ 53 + 19 &= 72 \\ 72 \div 0.2 &= 360\text{km} \end{aligned}$$

$$\begin{aligned} 15. (a) &2, 3, 4, 4, 3, 2 \\ (b) \text{ Line 5} &\rightarrow 1 + 2 + 3 + 4 + 5 + 5 + 4 + 3 + 2 + 1 = 30 \\ (c) 110 \div 2 &= 55 \\ 55 &\rightarrow 1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10 \end{aligned}$$

$$\begin{aligned} 16. 161 - 56 &= \$105 \\ \$105 \div 15 &= 7 \text{ weeks of saving} \\ \$56 \div 7 &= \$8 \\ \$8 + \$12 + \$15 &= \$35 \end{aligned}$$

$$\begin{aligned} 17. 10u + 1000 &\rightarrow 5u + 2400 \\ 5u &\rightarrow 1400 \\ 1u &\rightarrow 280 \\ 2u &\rightarrow 560 \\ 5u &\rightarrow 1400 \end{aligned}$$

$$1400 + 2400 = 3800\text{g} = 3\text{kg } 800\text{g}$$

18. B  $\rightarrow$  30%

H  $\rightarrow$  28%

A  $\rightarrow$  42%

125%

B  $\rightarrow$  37.5%

H  $\rightarrow$  35%

A  $\rightarrow$  52.5%

(a)  $\$45 \div 37.5 = \$1.20$  (1%)

1%  $\rightarrow$  \$1.20

100%  $\rightarrow$  \$120

(b) 52.5%  $\rightarrow$  \$63