

# **Education and Manpower Bureau**

## **Territory-wide System Assessment 2005**

### **Primary 6**

### **Mathematics**

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#### **Instructions:**

1. There are 43 questions in this test.
2. Answer all questions.
3. The time allowed is 55 minutes.
4. Use of calculators is not allowed.
5. Write your answers in this question booklet.

#### (a) Multiple choice questions:

Mark your answers by putting a “✓” in the “○”, e.g.:

$$2 + 3 =$$

- A. 4    B. 5    C. 6    D. 7

#### (b) Questions in which you are asked to “Show your working”:

Write your mathematical expressions/equations, answers and statements/conclusions in the space provided. There is NO need to show your rough work.

#### (c) Other types of questions:

Answer as required in the space provided.

6. Do your rough work on the rough work sheet provided.
7. Write your School Code, Class and Class Number in the spaces below.

**School Code**

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(5)

**Class**

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**Class No.**

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(11)

1.  $20.02 - 16.67 =$  \_\_\_\_\_

1 mark (12)

2.  $534 \div 89 =$  \_\_\_\_\_

1 mark (13)

3.  $17.5 \times 0.8 =$  \_\_\_\_\_

1 mark (14)

4. List the following fractions in ascending order.

$\frac{4}{5}$

$\frac{5}{12}$

$\frac{13}{20}$

Answer:

(smallest)

(largest)

5.  $4\frac{1}{2} + 6\frac{5}{8} =$

1 mark (15)

6. Which two of the fractions below are equal?

$\frac{47}{7}$

$\frac{45}{7}$

$6\frac{1}{7}$

$6\frac{5}{7}$

1 mark (16)

Answer:

and  are equal.

1 mark (17)

7.  $\frac{2}{3} \div \frac{1}{8} \times 8\frac{1}{4} =$

1 mark (18)

8. Mathematics Bank

7      6      2005  
Day      Month      Year

PAY Mr. Sam Wong

HK DOLLARS Thirteen thousand and eight hundred only HK\$  13080

Sally Chan

Uncle Wong received a cheque of 'thirteen thousand and eight hundred dollars'. He found that the dollar amount in numbers was wrong. The digit '8' was written incorrectly in the \_\_\_\_\_ place.

1 mark (19)

9. Change 12% into a fraction and reduce it to the simplest form.

Answer:

1 mark (20)

10. List all the common factors of 12 and 18.

Answer:

1 mark (21)

11. The price of a cinema ticket is \$45. The total income from selling 198 tickets is \$\_\_\_\_\_.

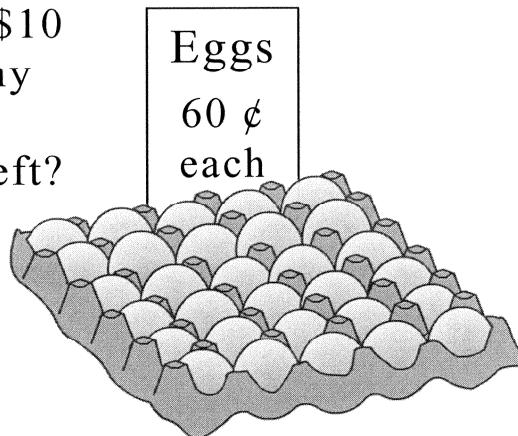
1 mark (22)

12. Write down the first three multiples of 21.

Answer:

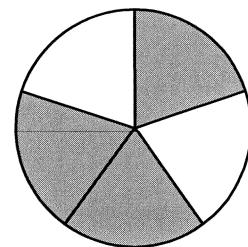
1 mark (23)

13. The least common multiple of 9 and 15 is \_\_\_\_\_.



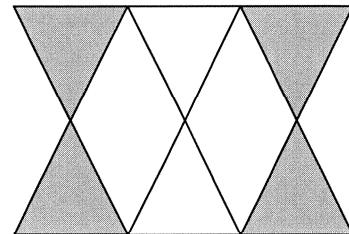
15. Express the shaded part as a percentage of each of the following figures.

(a) The shaded part is \_\_\_\_\_ % of the whole figure.



1 mark (28)

(b) The shaded part is \_\_\_\_\_ %  
of the whole figure.



1 mark (29)

16.



Mr. Cheung ordered 18 jackets at the wholesale price. He should pay \$ \_\_\_\_\_.

1 mark (30)

17. My father spent 2 hours to type a document. If my sister had typed for him, she would have needed  $\frac{3}{4}$  of the time. How much time in hour(s) less would she have used?  
(Show your working)

1 mark (31)

1 mark (32)

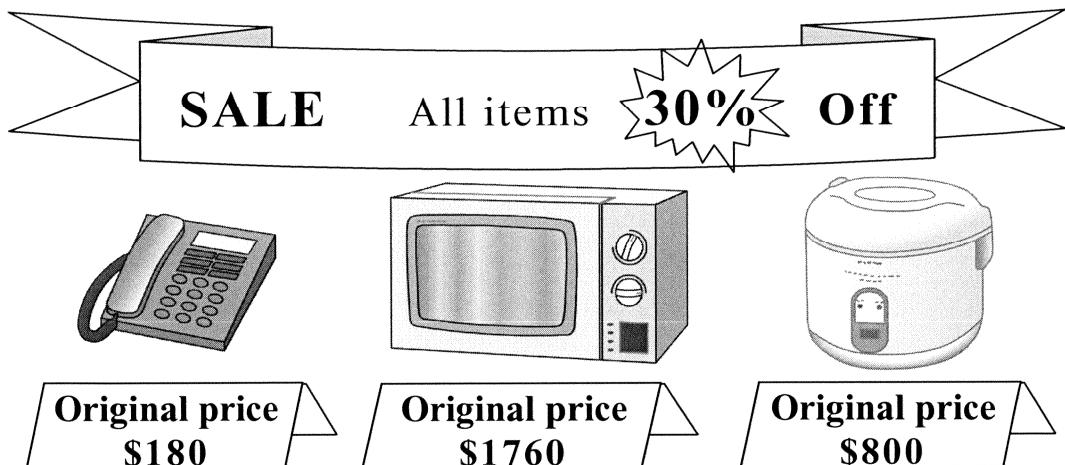
1 mark (33)

18.  $8\frac{3}{4}$  kg of cookies are packed into bags of  $\frac{5}{8}$  kg each. How many bags can be packed?

Answer: \_\_\_\_\_ bags can be packed.

1 mark (34)

19.



- (a) Mrs. Lee bought a telephone at the discount price. How much should she pay?

Answer: She should pay \$ \_\_\_\_\_ .

1 mark (35)

- (b) My mother bought a rice cooker at the discount price. How much did she save?

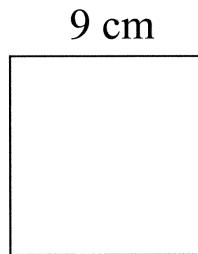
(Show your working)

1 mark (36)

1 mark (37)

1 mark (38)

20. The perimeter of the square on the right is \_\_\_\_\_ cm and its area is \_\_\_\_\_  $\text{cm}^2$ .



1 mark (39)

1 mark (40)

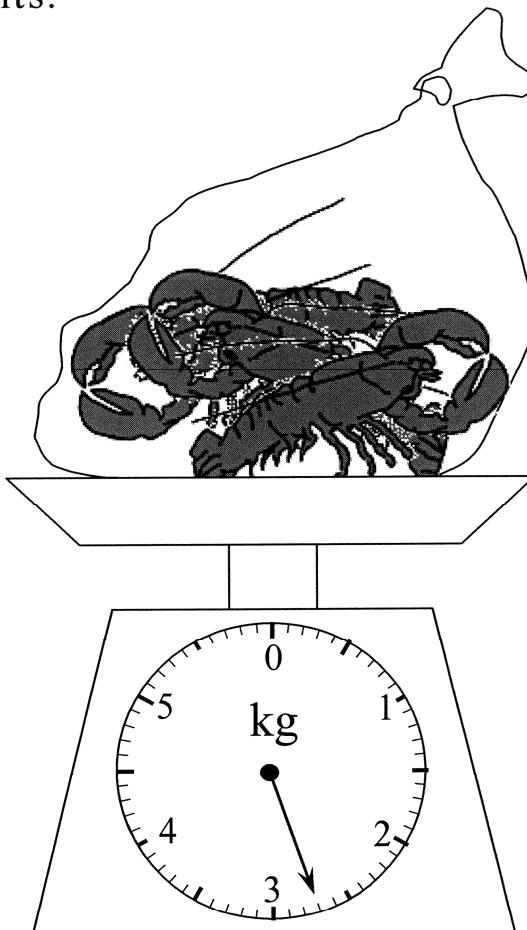
21. Miss Wong buys a guitar by paying the amount of cash below.



The selling price of the guitar is \_\_\_\_\_ dollars and  
\_\_\_\_\_ cents.

1 mark (41)

- 22.



My mother buys 3 lobsters. On average the weight of one  
lobster is \_\_\_\_\_ kg.

1 mark (42)

23.



### Inter-school Concert



Date: 18<sup>th</sup> December 2004 (Saturday)

Place: Community Hall

Time: 15:30 - 17:30

The inter-school concert started at

\_\_\_\_\_ past \_\_\_\_\_ in the \*morning / afternoon.

(\*Circle the correct answer)

1 mark (43)

24. Fill in each of the blanks below with a suitable unit of measurement.

(a)



The weight of the calculator is about

160 \_\_\_\_\_ .

1 mark (44)

(b) The height of the Tian Tan Buddha Statue in Lantau Island is about 26 \_\_\_\_\_ .

1 mark (45)

(c)

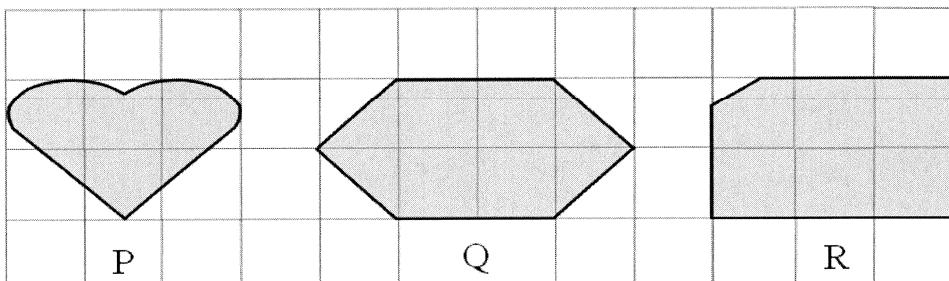


The capacity of the kettle is about

4 \_\_\_\_\_ .

1 mark (46)

25.



Compare the areas of the plane figures P, Q and R, and arrange them in descending order.

Answer: \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_  
(largest) (smallest)

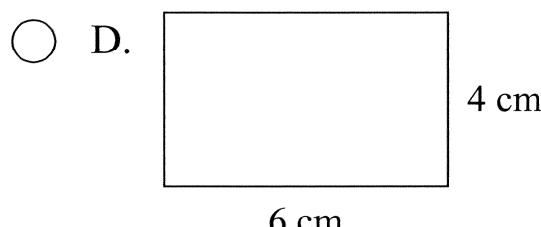
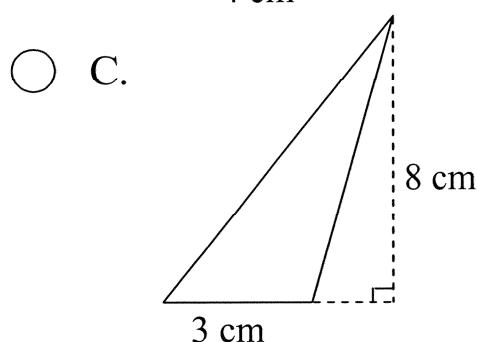
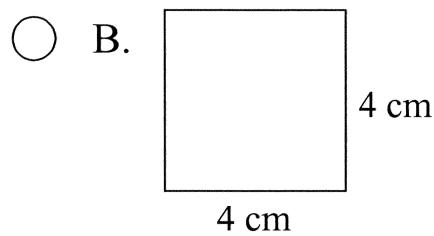
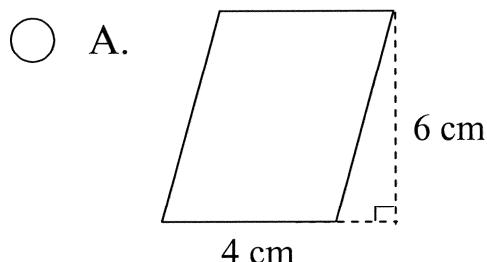
1 mark (47)

26. Which of the following units is most suitable for measuring the speed of an aeroplane?

- A. metre
- B. metres per second
- C. kilometre
- D. kilometres per hour

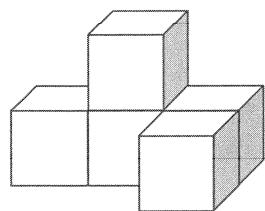
(48)

27. Which of the figures below has the smallest area?

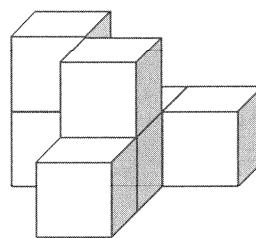


(49)

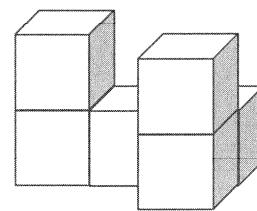
28.



Solid A



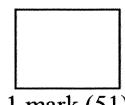
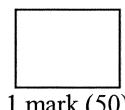
Solid B



Solid C

If the volume of each is  $8 \text{ cm}^3$ , Solid \_\_\_\_\_ in the

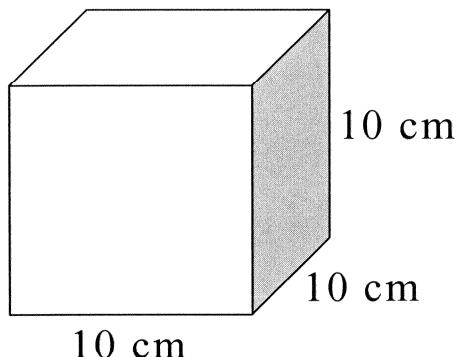
above figure has the largest volume, which is \_\_\_\_\_  $\text{cm}^3$ .



29. The average of 8, 16, 28 and 54 is \_\_\_\_\_.

1 mark (51)

30. What is the capacity of the box on the right?



- A. 1 mL       B. 100 mL  
 C. 1 L       D. 1000 L

(52)

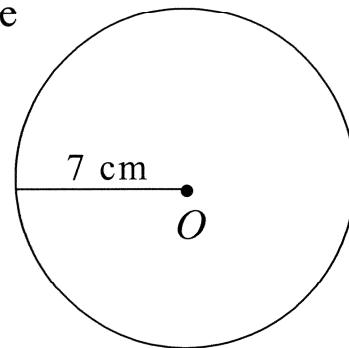
31. Paul took part in a fund-raising walk. The whole journey was 3 km. He set off at 9:00 a.m. and finished at 10:30 a.m. What was Paul's average walking speed?

- A. 0.5 km/h       B. 1.5 km/h  
 C. 2 km/h       D. 4.5 km/h

(53)

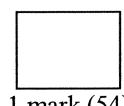
32. In the figure on the right,  $O$  is the centre of the circle. What is its circumference?

(Take  $\pi$  as  $\frac{22}{7}$ )



Answer: Its circumference is

\_\_\_\_\_ cm.

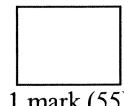


1 mark (54)

33. Solve the equation:

$$y - \frac{1}{6} = 2\frac{5}{6}$$

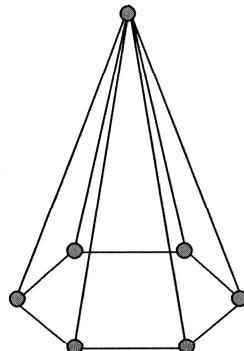
$$y = \boxed{\phantom{00}}$$



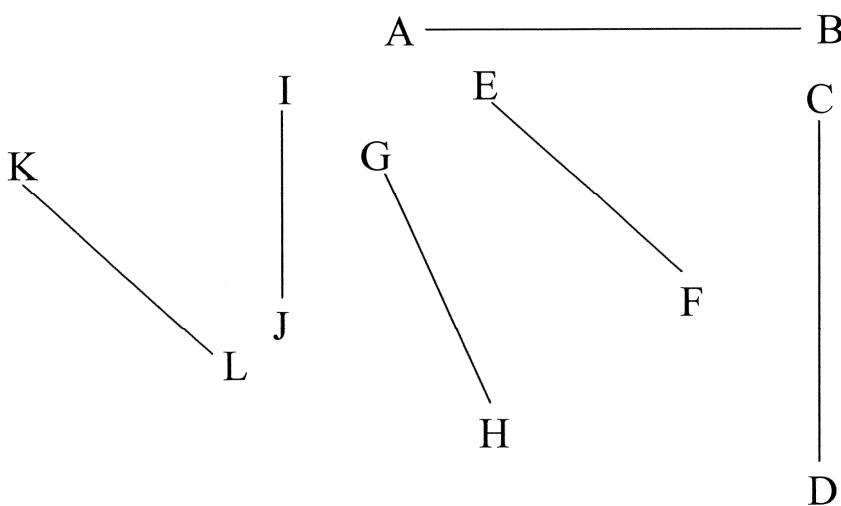
1 mark (55)

34. The solid figure on the right is a

- A. heptagonal pyramid
- B. heptagonal prism
- C. hexagonal pyramid
- D. hexagonal prism



35.



In the figure above,

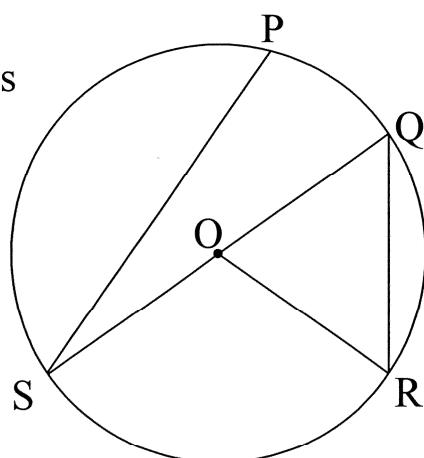
- (a) straight line \_\_\_\_\_ is parallel to the straight line CD.  
 (b) straight line \_\_\_\_\_ is parallel to the straight line EF.

1 mark (57)

1 mark (58)

36. In the figure on the right, O is the centre. Which straight line is a diameter?

- A. Straight line SP
- B. Straight line QR
- C. Straight line SQ
- D. Straight line OR

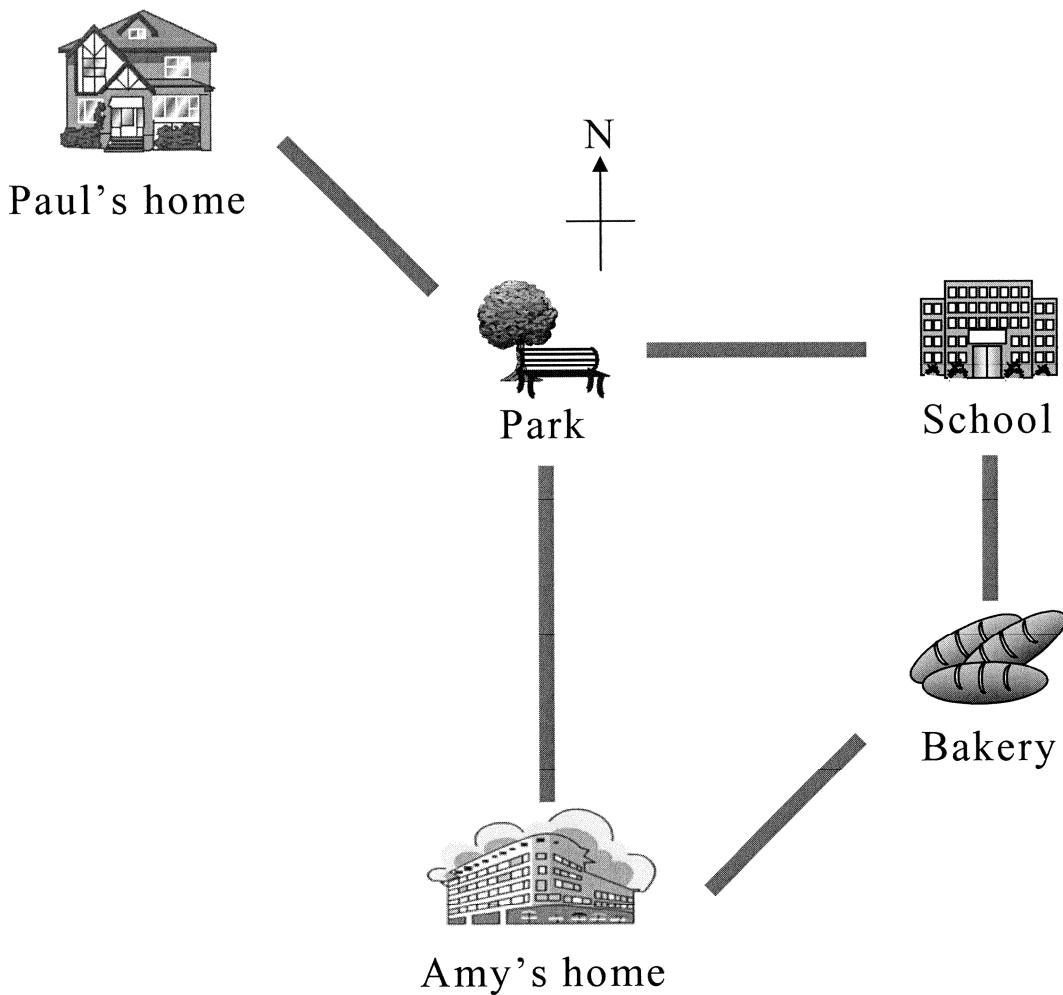


(59)

37. The area of a rectangle 12 cm long and 8 cm wide is \_\_\_\_\_  $\text{cm}^2$ .

1 mark (60)

38.



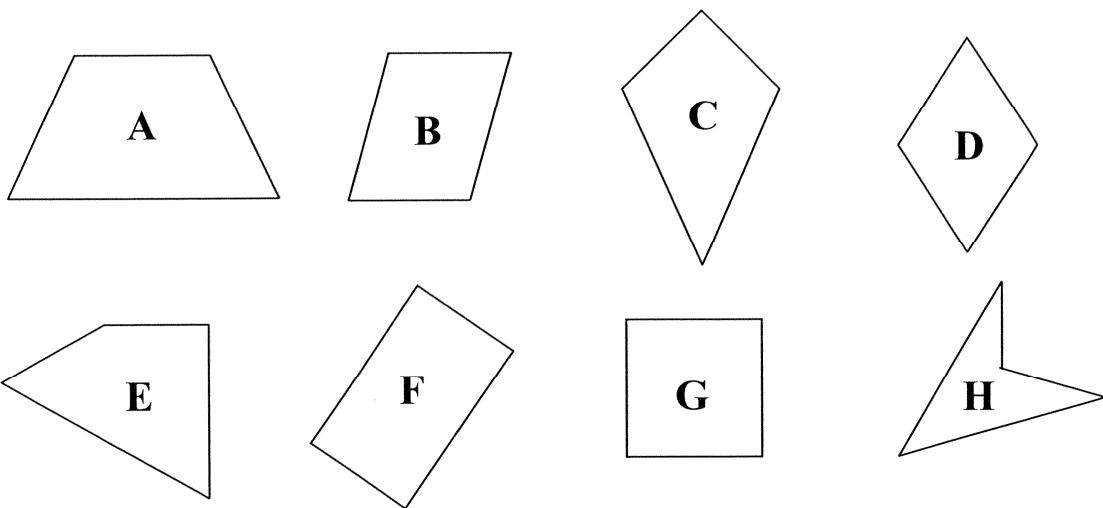
- (a) Paul starts from home. He walks towards the \_\_\_\_\_ direction and comes to the park. Then he walks due \_\_\_\_\_ to go to the school.

1 mark (61)

- (b) Amy starts from home. She walks towards the \_\_\_\_\_ direction and comes to the bakery. Then she walks due \_\_\_\_\_ to go to the school.

1 mark (62)

39.



- (a) Which of the quadrilaterals shown above has only one pair of opposite sides parallel to each other?

Answer: \_\_\_\_\_ has only one pair of opposite sides parallel to each other.

It is a \* trapezium / parallelogram / rhombus.  
(\* Circle the correct answer)

1 mark (63)

- (b) Which of the quadrilaterals shown above have four equal sides?

Answer: \_\_\_\_\_ and \_\_\_\_\_ have four equal sides.

1 mark (64)

- (c) Which of the quadrilaterals shown above have four right angles and two pairs of opposite sides parallel to each other?

Answer: \_\_\_\_\_ and \_\_\_\_\_ have four right angles and two pairs of opposite sides parallel to each other.

1 mark (65)

40. Solve the equation:

$$10.5 = 3 + 5y$$

$$y = \boxed{\quad}$$

1 mark (66)

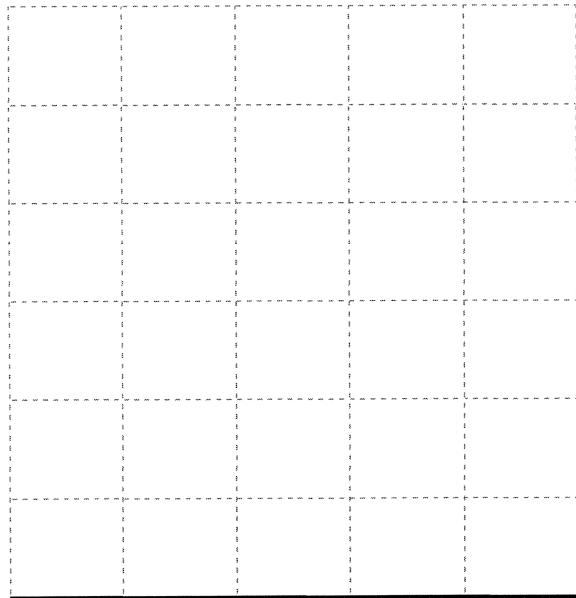
41. The following table shows the number of parents of Primary 4 to Primary 6 pupils attending a talk given by the school.

Class Level	P.4	P.5	P.6
Number of parents	40	20	30

Construct a pictogram from the above information, using one  to stand for 10 parents.

### Number of Parents Attending the Talk

One  stands for 10 parents

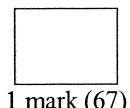


P.4

P.5

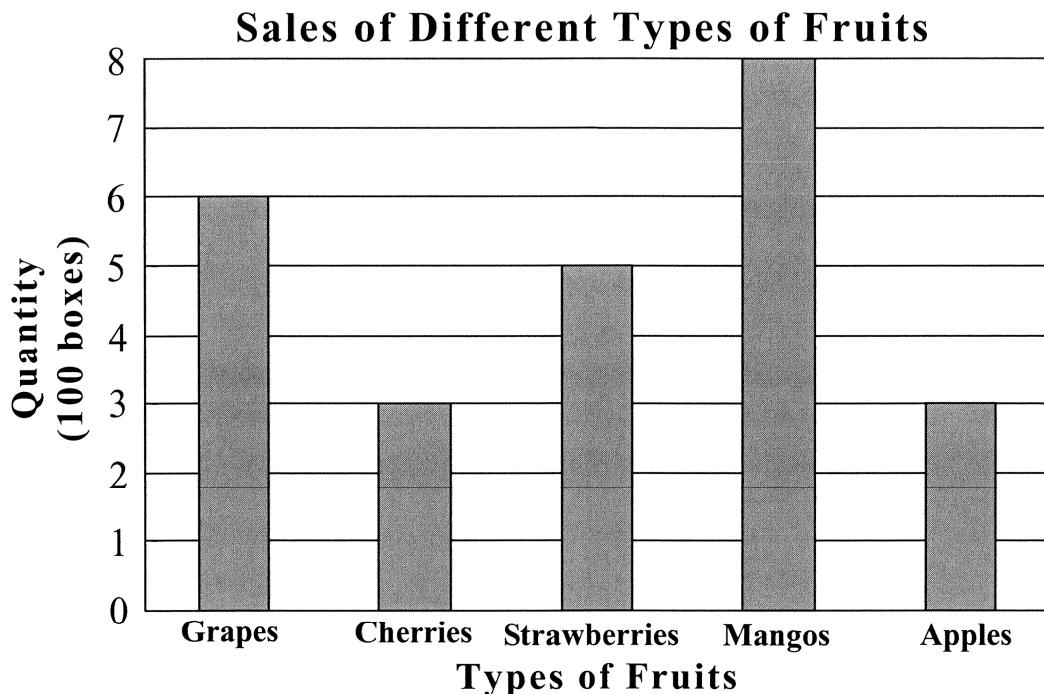
P.6

Class Level



1 mark (67)

42. The sales of the different types of fruits by Fresh Fruit Wholesaler last week are shown below:



- (a) Which two types of fruits had the same sales? How many boxes of each type were sold?

Answer: \_\_\_\_\_ and \_\_\_\_\_ had the same sales; \_\_\_\_\_ boxes of each type were sold.

1 mark (68)

- (b) Express the sales of grapes as a fraction of the sales of mangos.

Answer: The sales of grapes are \_\_\_\_\_ of the sales of mangos.



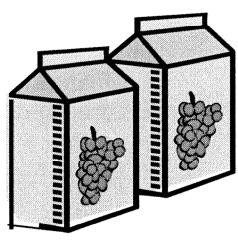
1 mark (69)

- (c) Express the sales of strawberries as a percentage of the total sales of all the fruits.

Answer: The sales of strawberries are \_\_\_\_\_ % of the total sales of all the fruits.

1 mark (70)

43.



Mr. Chan bought two boxes of fruit juice and he saved a total of \$3. Use the method of solving equation, find the original price of one box of fruit juice.

(Show your working)

Let the original price of one box of fruit juice be  $\$y$ .

1 mark (71)

1 mark (72)

1 mark (73)

- END OF PAPER -