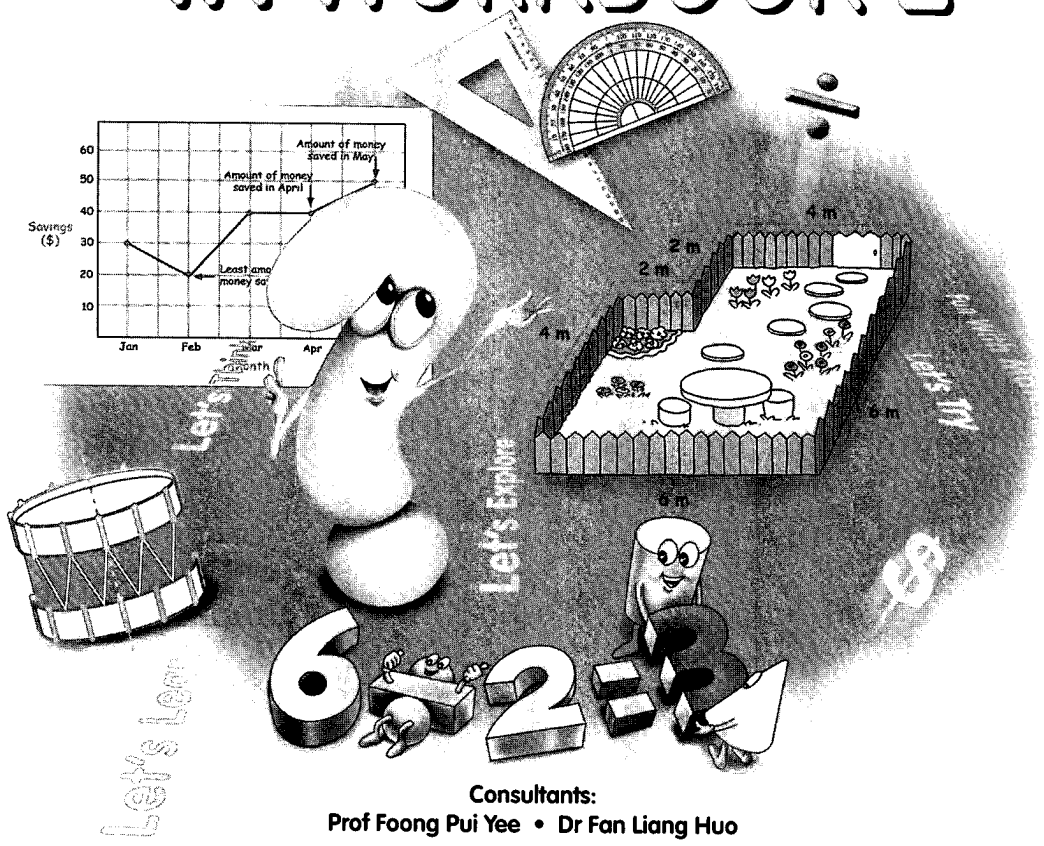
New Syllabus

Primary Mathematics

4A WORKBOOK 2



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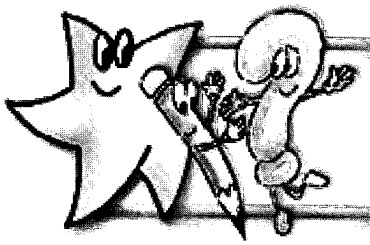


CONTENTS

7. Symmetry

4 Fractions (II)

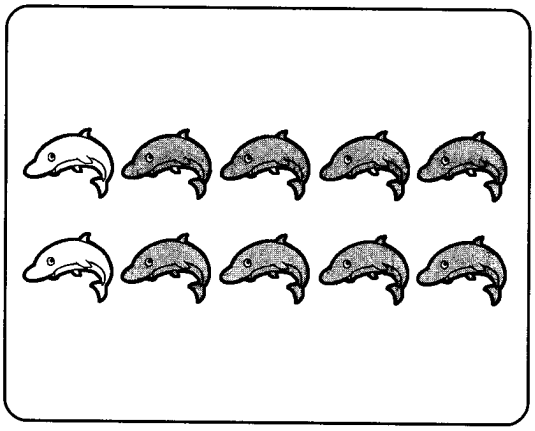
WORKSHEET 16

Date: ☐

Fraction of a Set

1. What fraction of the following are shaded? Express your answers in the simplest form.

(b)



Total number of dolphins = 10

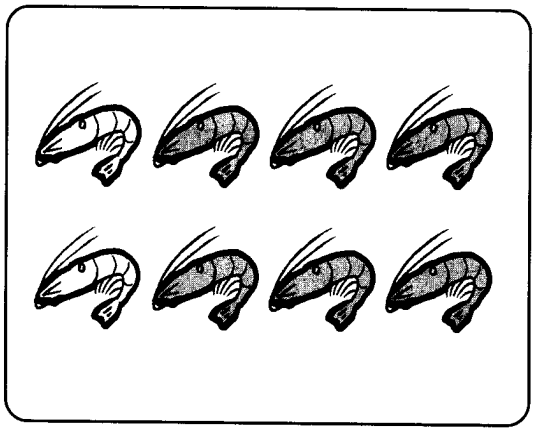
Number of dolphins shaded

= 8

Fraction of dolphins shaded

$= \frac{8}{10} = \frac{\square}{\square}$

(b)



Total number of prawns = ☐

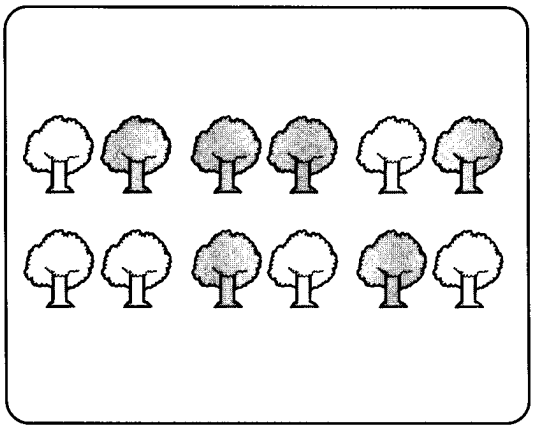
Number of prawns shaded

= ☐

Fraction of prawns shaded

$= \frac{\square}{\square} = \frac{\square}{\square}$

(c)



Total number of trees = ☐

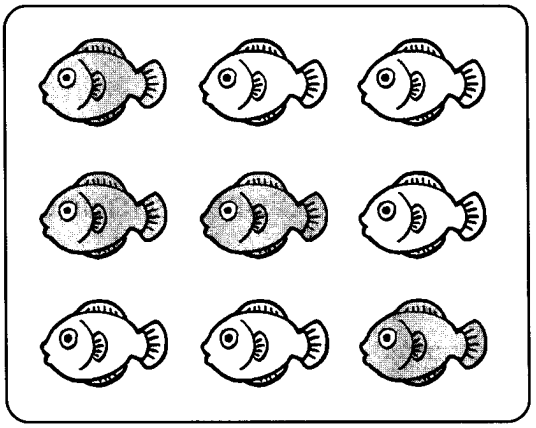
Number of trees shaded

= ☐

Fraction of trees shaded

$= \frac{\square}{\square} \quad = \frac{\square}{\square}$

(d)



Total number of fish = ☐

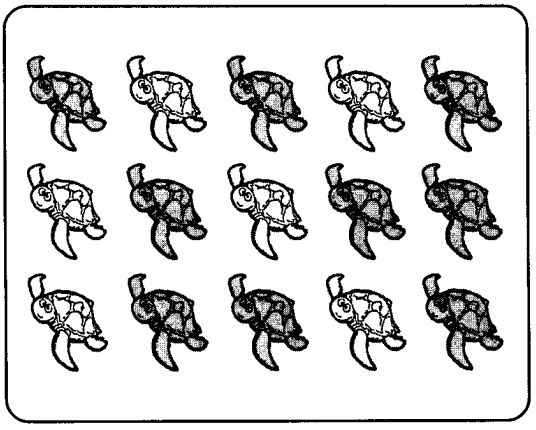
Number of fish shaded

= ☐

Fraction of fish shaded

$= \frac{\square}{\square}$

(e)



Total number of turtles = ☐

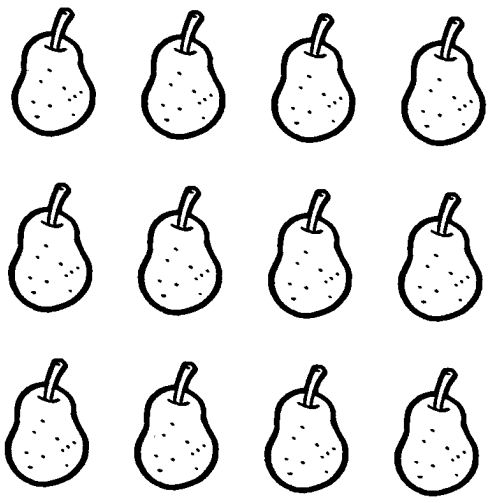
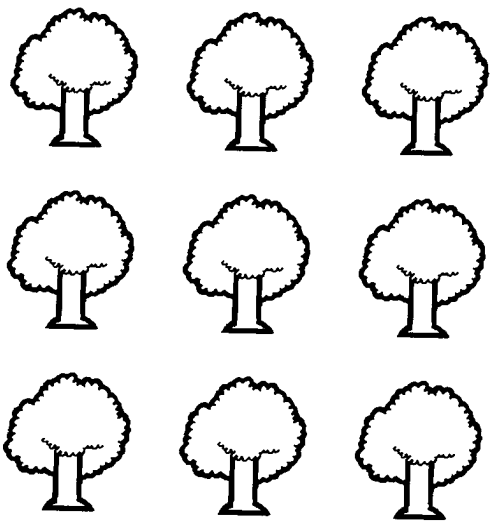
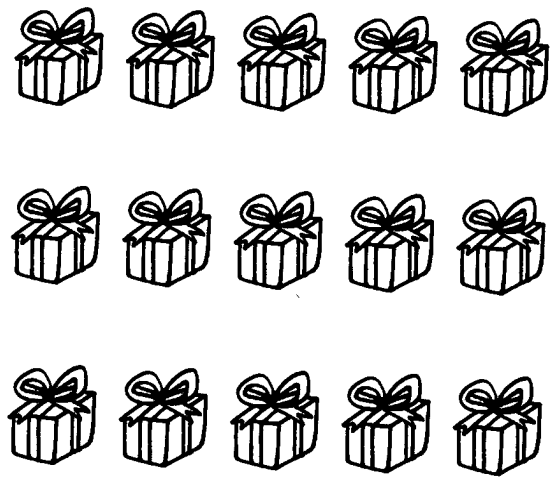
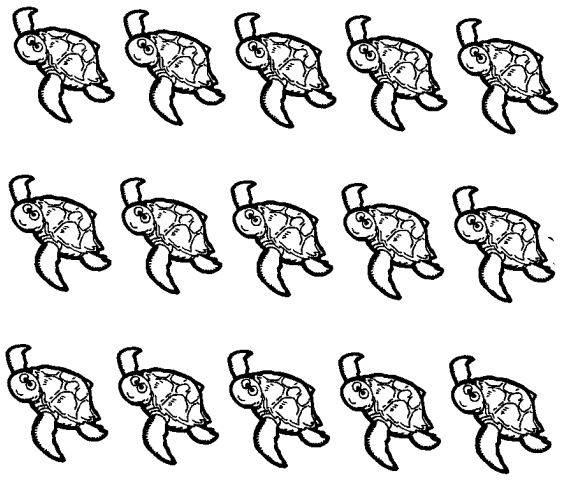
Number of turtles shaded

= ☐

Fraction of turtles shaded

$= \frac{\square}{\square} \quad = \frac{\square}{\square}$

2. Colour the following to represent the given fractions of the sets.

(a) $\frac{3}{4}$	(b) $\frac{4}{9}$
	
(c) $\frac{2}{5}$	(d) $\frac{1}{3}$
	

WORKSheet 17

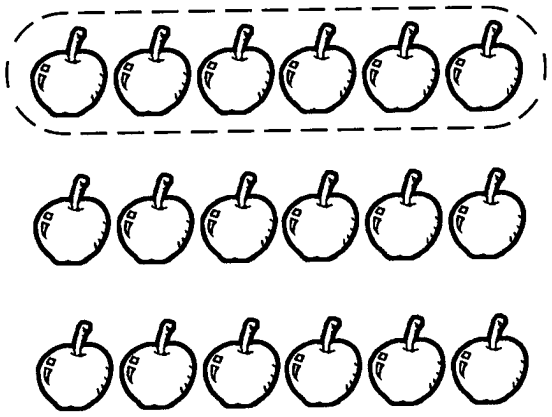
Date:

Multiplication of a Proper Fraction and a Whole Number

1. Find the value of each of the following.

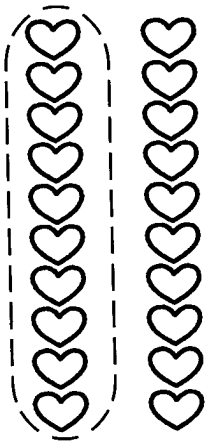
(a) $\frac{1}{3}$ of 18

=



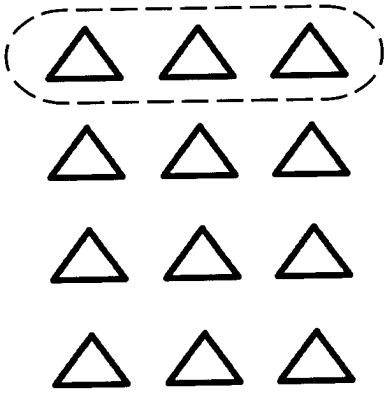
(b) $\frac{1}{2}$ of 20

=



(c) $\frac{1}{4}$ of 12

=



2. Find the value of each of the following.

(a) $\frac{1}{2}$ of $18 = \frac{1}{2} \times 18$

$= \frac{1 \times 18}{2}$

$=$

(b) $\frac{2}{3}$ of $12 =$

(c) $\frac{3}{5}$ of $20 =$

(d) $\frac{5}{8}$ of $48 =$

(e) $\frac{3}{8}$ of 96 =

(f) $\frac{1}{10}$ of 120 =

(g) $\frac{1}{5}$ of 24 =

(h) $\frac{1}{12}$ of 40 =

WORKSHEET 18

Date:

Word Problems

1. 48 students went to Sentosa. $\frac{1}{3}$ of them were girls. How many of them were boys?

2. On a plate of sandwiches, $\frac{2}{5}$ of them are egg sandwiches and the rest are tuna sandwiches. If there are 24 egg sandwiches, how many sandwiches are there altogether?

3. Among 20 people, 12 of them like to watch comedies. What is the fraction of people who do not like to watch comedies? Give your answer in its simplest form.

4. Sam spent $\frac{3}{4}$ of his money on a present. If the present cost \$78, how much money did Sam have at first?

5. During a concert, $\frac{5}{8}$ of the people gave flowers to the singer. If there was a total of 24 people at the concert, how many did not give the singer flowers?

6. Peter had 84 kg of rice. He sold $\frac{1}{4}$ of the rice on Monday and 28 kg on Tuesday. How many kilograms of rice did he sell on those two days?

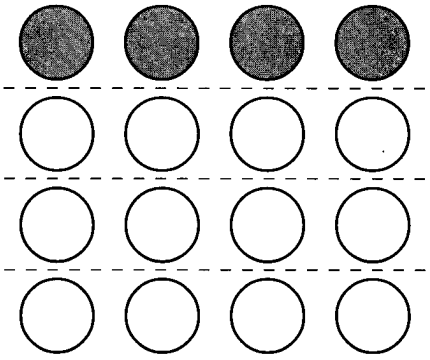
7. Frank collected some stamps. $\frac{3}{5}$ of his stamps were local stamps. If there were 18 local stamps, how many stamps did Frank collect altogether?

8. Liwei had \$210. He spent \$35 on a schoolbag and $\frac{1}{7}$ of the remainder on a pair of shoes. What was the price of his shoes?

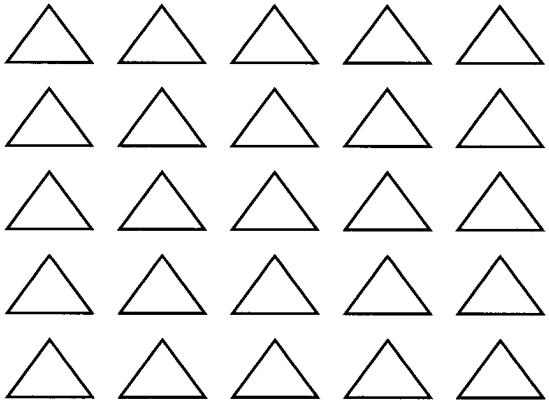
Practice 4

Date:

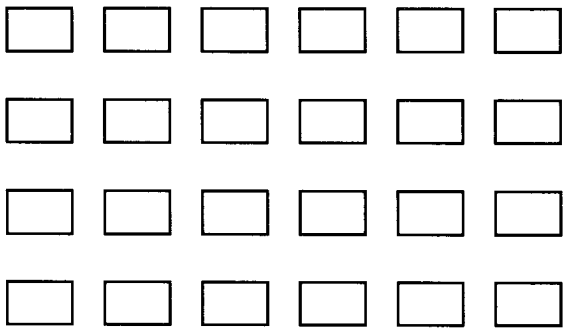
1. What fraction of this set is shaded? Express your answer in the simplest form.



2. Colour to show $\frac{2}{5}$.



3. Colour $\frac{1}{6}$ of 24.



4. Calculate the following. Express each answer in its simplest form.

(a) $\frac{2}{6} \times 72 =$

(b) $\frac{3}{4} \times 100 =$

(c) $\frac{1}{8} \times 64 =$

(d) $\frac{3}{7} \times 77 =$

(e) $\frac{6}{7} \times 5 =$

(f) $\frac{2}{9} \times 27 =$

(g) $\frac{5}{9} \times 24 =$

(h) $\frac{7}{12} \times 15 =$

5. Caton drank $\frac{3}{5}$ litre of apple juice on Monday, $\frac{3}{10}$ litre on Tuesday and $\frac{2}{5}$ litre on Wednesday. How much apple juice did Caton drink on those three days?

6. Alice bought 30 pencils. She gave $\frac{1}{6}$ of it to Mary. How many pencils did Mary receive?

7. Angela read a book with 156 pages. She read $\frac{1}{3}$ of the book on Monday. How many pages were not read?

5 Tables and Line Graphs

WORKSHEET 19

Date:

Tables

1. Present the following information in the table given below.

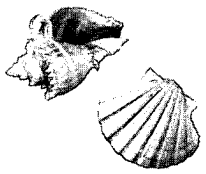
Ahmad
Mass = 35 kg
Height = 138 cm

Mary
Mass = 32 kg
Height = 130 cm

Ram
Mass = 39 kg
Height = 142 cm

Name	Mass (kg)	Height (cm)

2. Jane and her friends collected seashells at the beach last weekend. Jane collected 18 cockle shells and 15 cone shells. Mary collected 12 cockle shells and 14 cone shells. Joyce collected 10 cockle shells and 18 cone shells. Kemin collected 12 cockle shells and 15 cone shells.



Present the above information in the table below and answer the questions that follow.

	Number of cockle shells	**Number of cone shells**
Jane		
Mary		
Joyce		
Kemin		

(a) Who collected the most number of cockle shells? ☐

(b) Who collected the least number of cone shells? ☐

(c) Who collected equal number of cockle shells? ☐

and ☐

(d) Who collected equal number of cone shells? ☐

and ☐

3. The following table shows the enrolment of six P4 classes. Using the information provided in the table, answer the questions that follow.

Class	Boys	Girls
4A	18	22
4B	19	21
4C	20	20
4D	18	22
4E	21	19
4F	19	19

(a) Which classes have equal number of girls and boys?

(b) Which class has more boys than girls?

(c) How many pupils are there in 4C?

(d) What is the total enrolment for the level?

(e) Are there more girls than boys? How many more?

4. Minghua recorded the colours of the cars in his school carpark. There were 14 white cars, 10 blue cars, 2 yellow cars, 8 silver-grey cars and 4 red cars.

Present this information in the table and answer the following questions.

Colour	Number of Cars
White	
Blue	
Yellow	
Silver-grey	
Red	

(a) Which is the most popular colour?

(b) Which is the least popular colour?

(c) How many cars are not white?

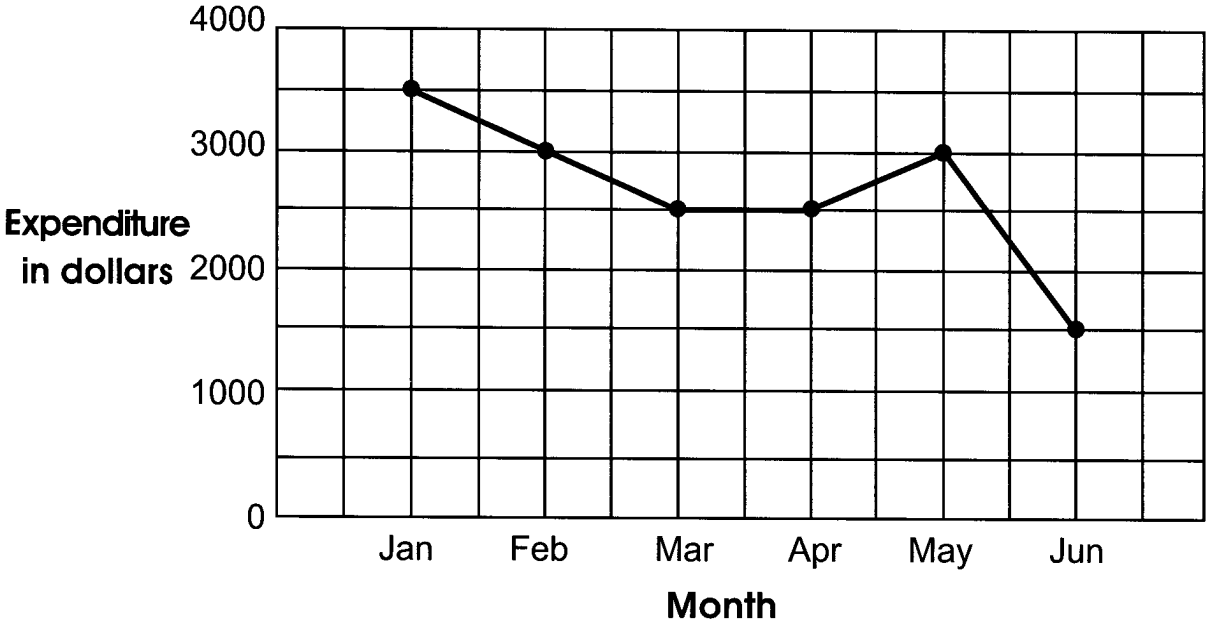
(d) What is the total number of cars in the carpark?

WORKSHEET 20

Date:

Line Graphs

1. The line graph below shows Mr Sulong's monthly family expenditure from January to June.



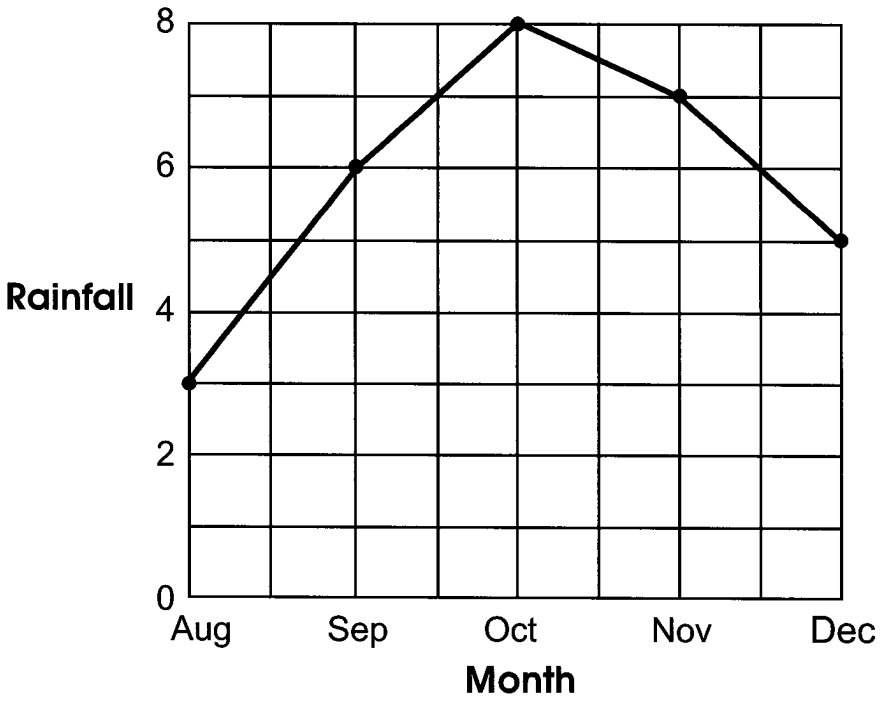
Study the line graph and answer the following questions.

(a) Which month was the family expenditure the highest?

(b) Which month was the family expenditure the lowest?
What was the amount spent?

(c) In which month was there an increase in the family expenditure as compared to the previous month?

2. The line graph below shows the monthly rainfall of a town from August to December.



Study the line graph and answer the following questions.

(a) Which was the wettest month?

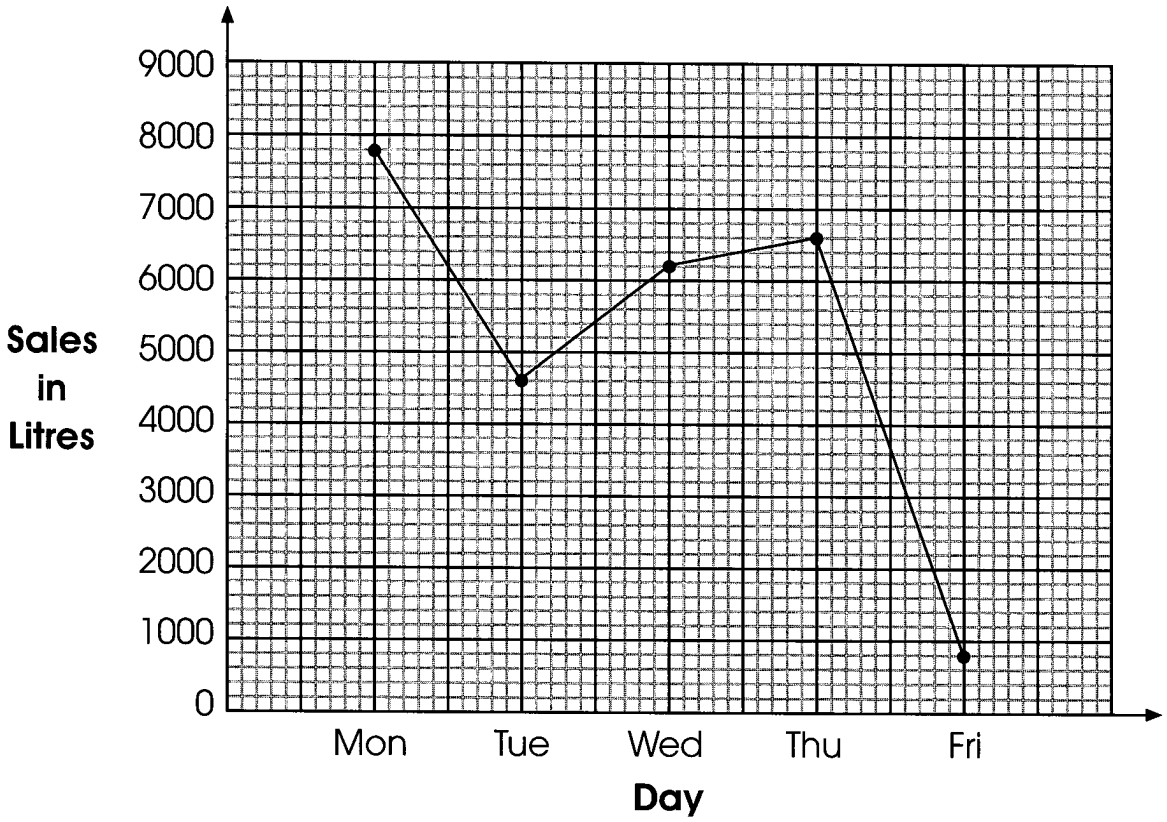
(b) Which was the driest month?

(c) What is the difference in the amount of rainfall between the wettest month and the driest month?

(d) How much more rainfall was recorded in November compared to December?

(e) What was the total rainfall recorded for these 5 months?

3. The line graph below shows the sales of petrol at a petrol station in five days.



Based on the information provided, answer the questions:

(a) On which day was the sale of petrol the highest?

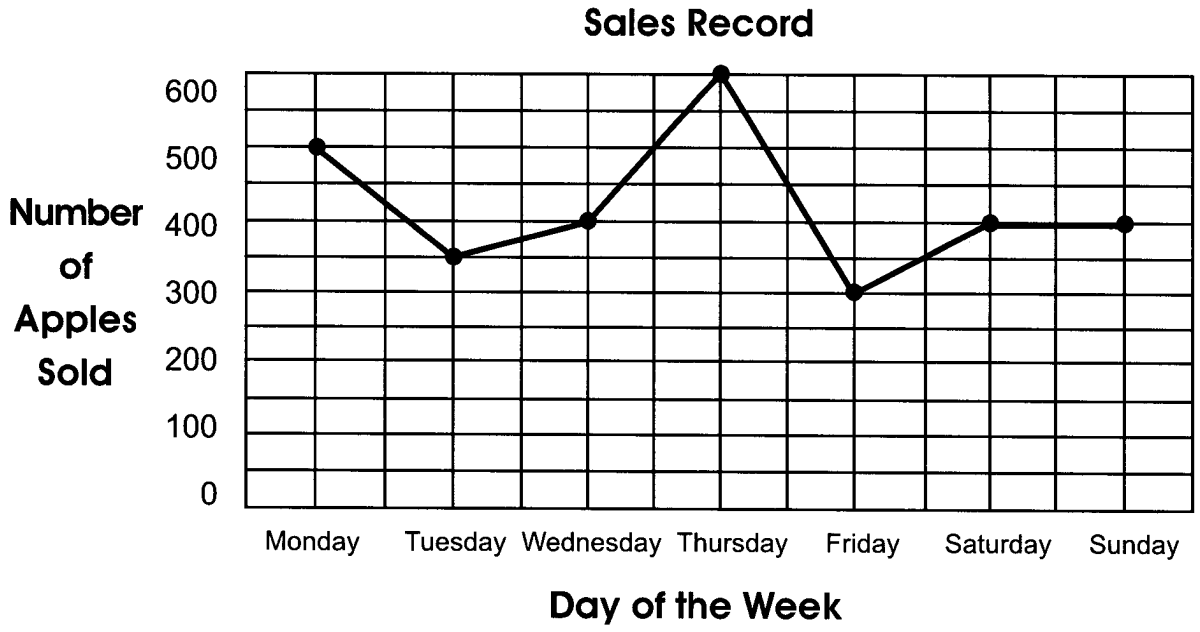
(b) How many more litres of petrol were sold on Monday than on Tuesday?

(c) What was the difference between the highest and lowest sale of petrol?

Practice 5

Date: _____

1. The line graph below shows the number of apples sold by a fruit seller.



(a) On which day was the most number of apples sold?

_____

(b) On which day was the least number of apples sold?

_____

(c) On which days were the same amount of apples sold?

_____ ,

_____

and

_____

2. The table below shows the amount of money John and Peter saved in 5 months.

	John	Peter
January	$20	$32
February	$8	$25
March	$16	$17
April	$20	$30
May	$25	$15

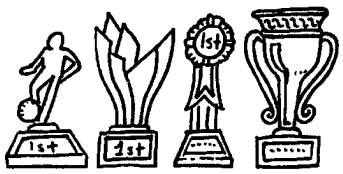
Based on the information provided above, answer the questions below.

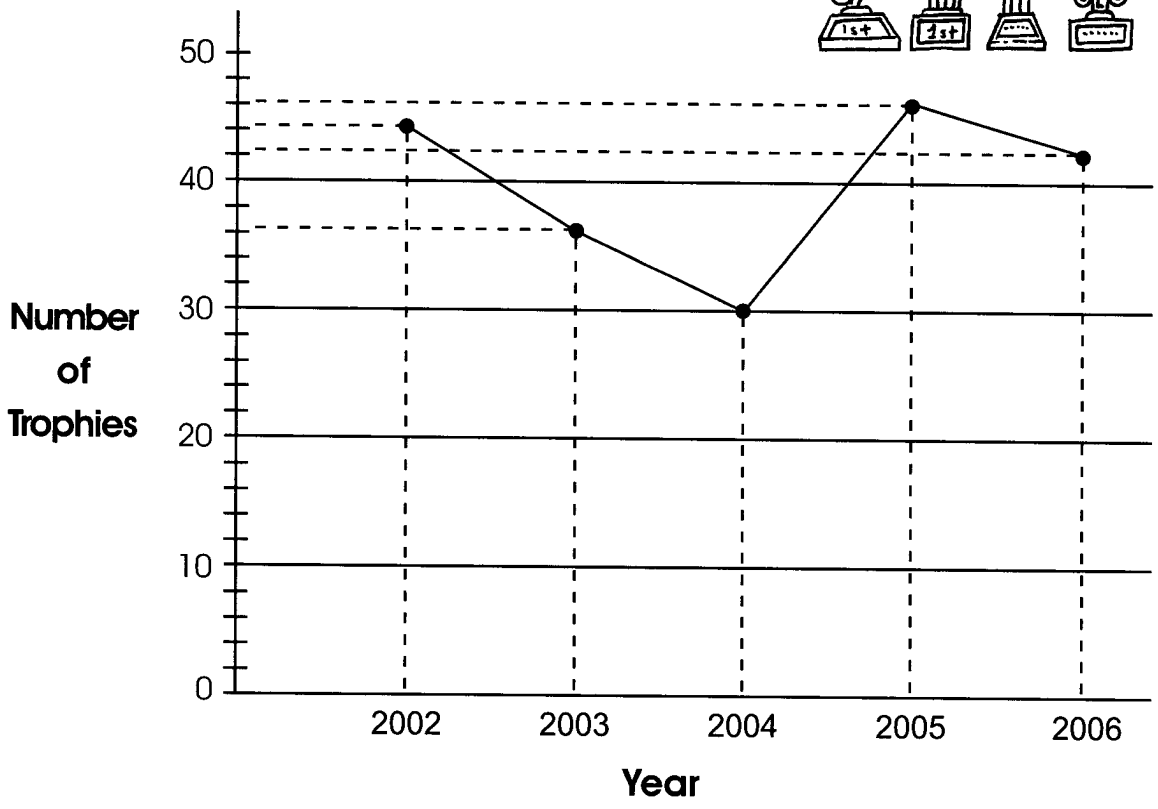
(a) Who saved more money in January?

(b) Who saved more money in April?

(c) In which month did John save the greatest amount of money?

3. The line graph shows the number of trophies won by the Blue House from 2002 to 2006. Study the graph and answer the questions that follow.



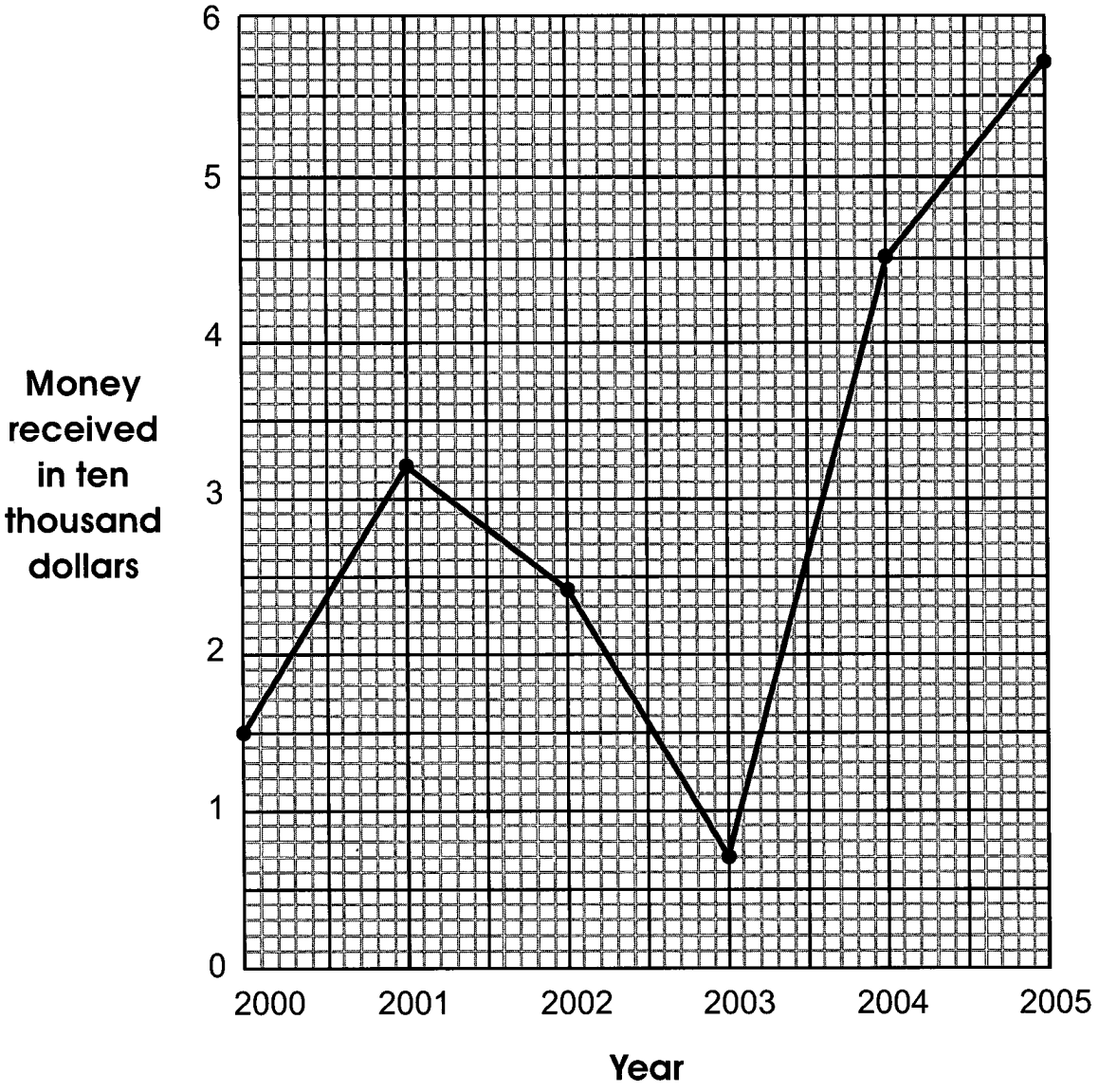


(a) In which year did the Blue House win the most trophies?

(b) In which year did the Blue House win the least trophies?

(c) In which year did the Blue House win more trophies, 2002 or 2006?

4. The line graph below shows the annual amount of money received by a retailer from 2000 to 2005.



Study the line graph and answer the following questions.

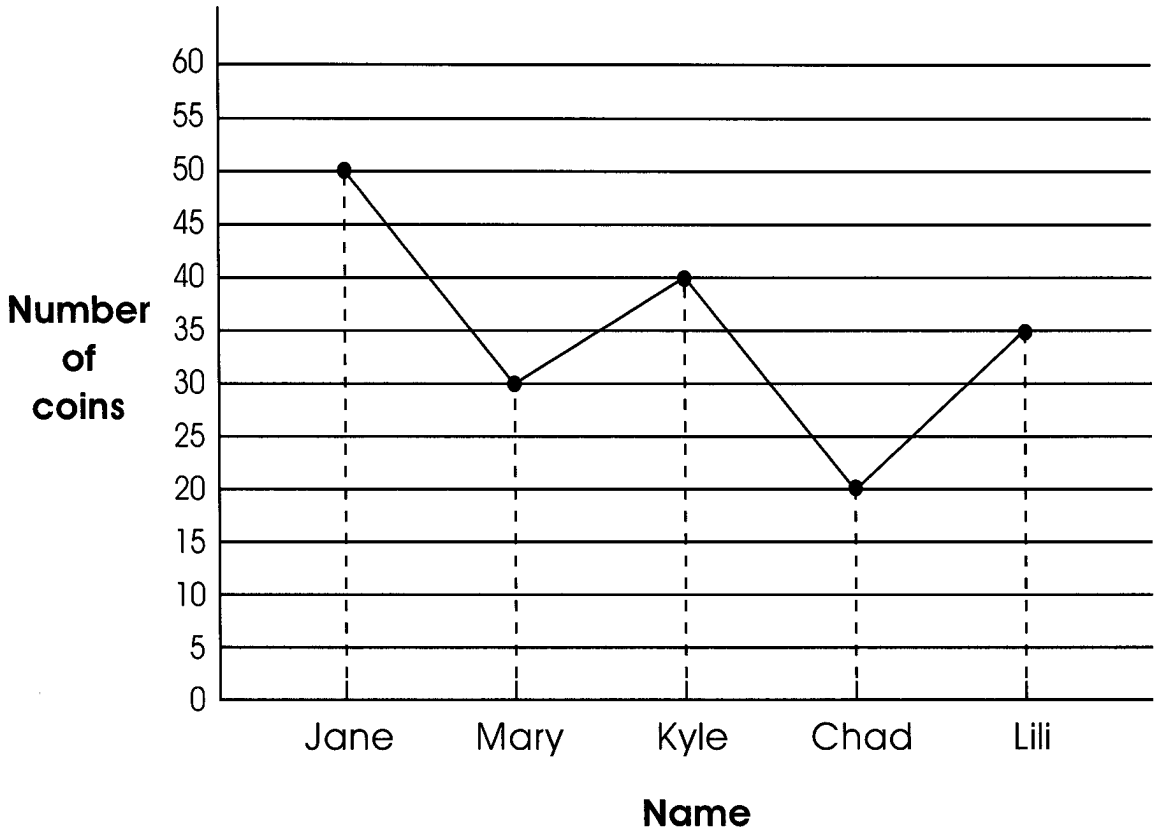
(a) In which year did the retailer received the least amount of money? What was the amount?

(b) How much more money was received by the retailer in 2001 than in 2000?

(c) Which were the years that the retailer experienced a drop in the amount of money received as compared to the previous year?

(d) What was the total amount of money received by the retailer from 2003 to 2005?

5. The line graph below shows the number of coins 5 children have.



(a) Complete the following table based on the information shown above.

Name	Jane	Mary	Kyle	Chad	Lili
Number of coins					

(b) Who has the greatest number of coins?

(c) Who has the least number of coins?

(d) How many more coins does Jane have than Mary?

(e) How many coins do Kyle and Lili have altogether?

(f) How many coins do the 5 children have altogether?

6 Perpendicular and Parallel Lines

WORKSHEET 21

Date: _____

Drawing Perpendicular Lines

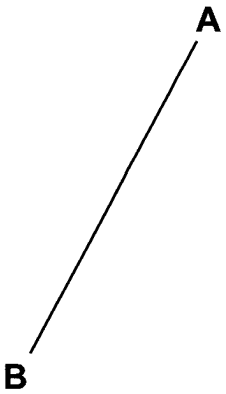
1. Draw a line perpendicular to AB.

(a)

A ——————————— B

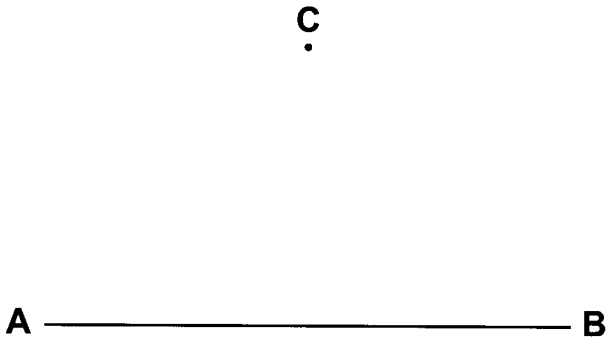
(b)

(c)

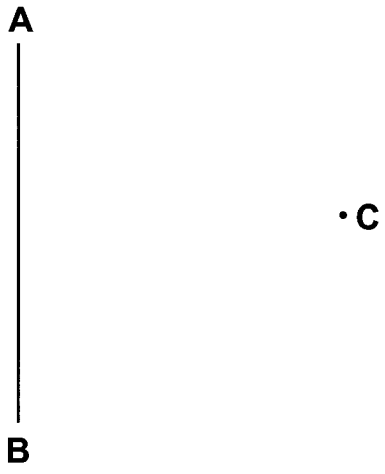


2. Draw a line perpendicular to AB through point C in each case.

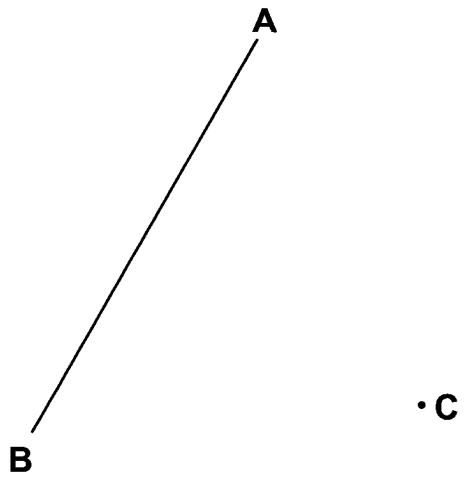
(a)



(b)

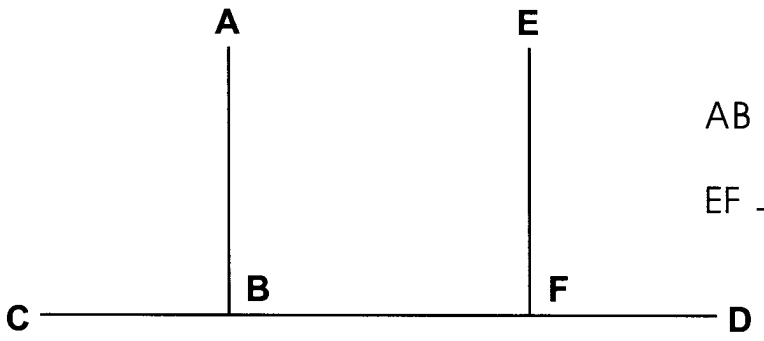


(c)



3. In each figure, check that AB ⊥ CD and EF ⊥ CD, using a set square. Put '✓' or '✗' in the boxes.

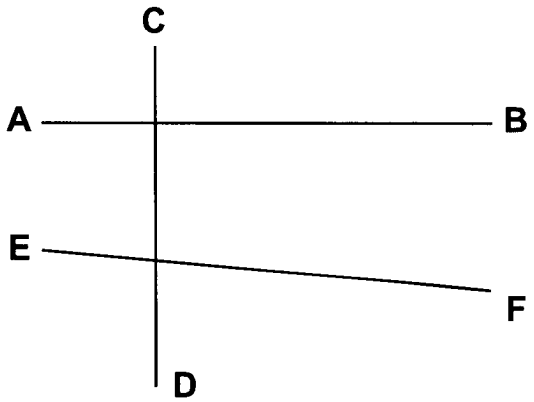
(a)



AB ⊥ CD ☐

EF ⊥ CD ☐

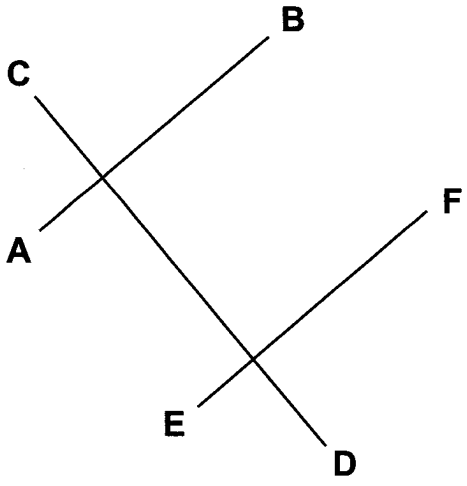
(b)



AB ⊥ CD ☐

EF ⊥ CD ☐

(c)



AB ⊥ CD ☐

EF ⊥ CD ☐

WORKSheet 22

Date:

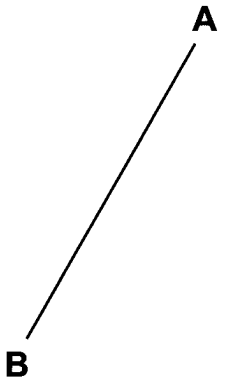
Drawing Parallel Lines

1. Draw a straight line parallel to line AB.

(a)

A ——————————— B

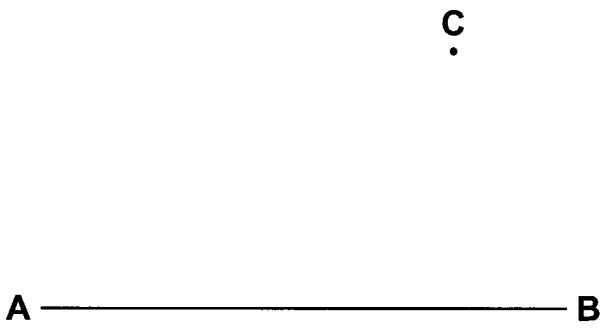
(b)



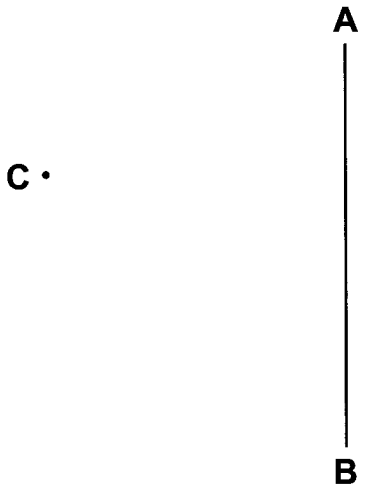
(c)

2. Draw a line parallel to AB through point C in each case.

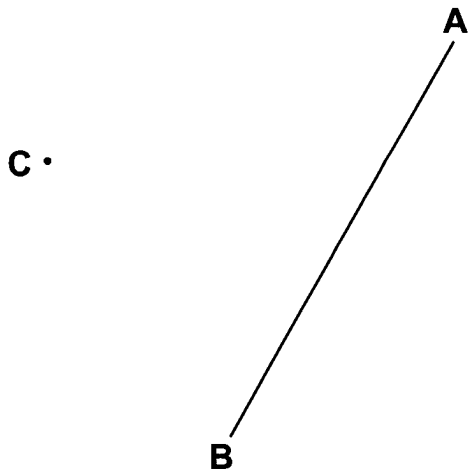
(a)



(b)

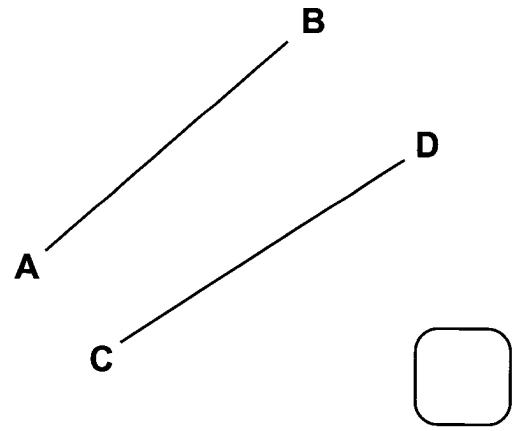


(c)

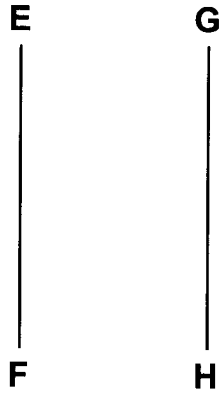


3. Tick the pairs of parallel lines in the boxes given.

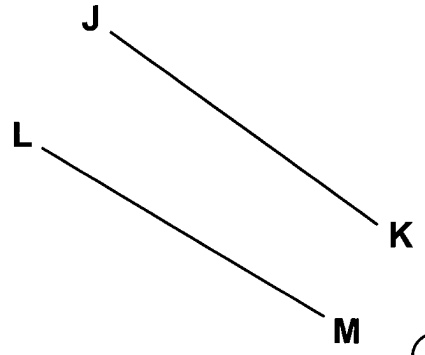
(a)



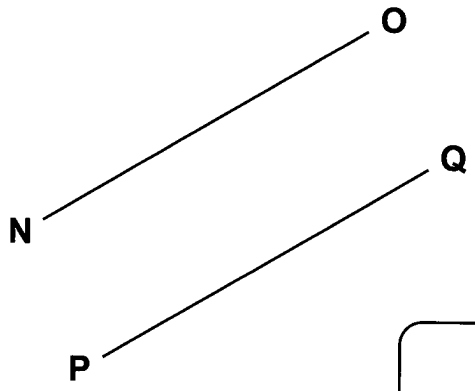
(b)



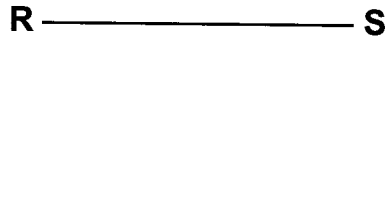
(c)



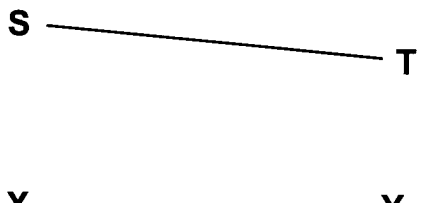
(d)



(e)

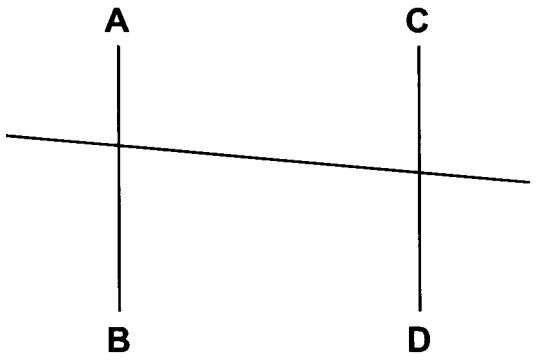


(f)



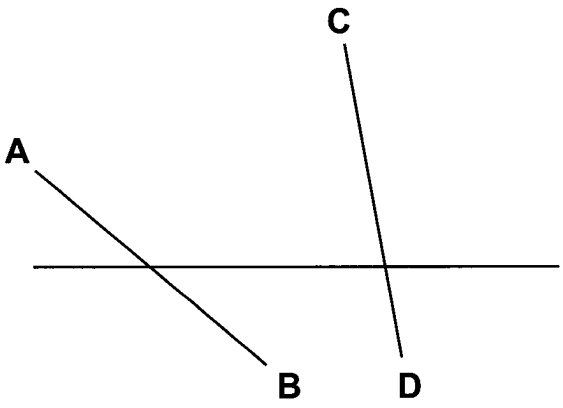
4. Use a set square and a ruler to check if AB // CD in each figure. Put '✓' or '✗' in the boxes.

(a)



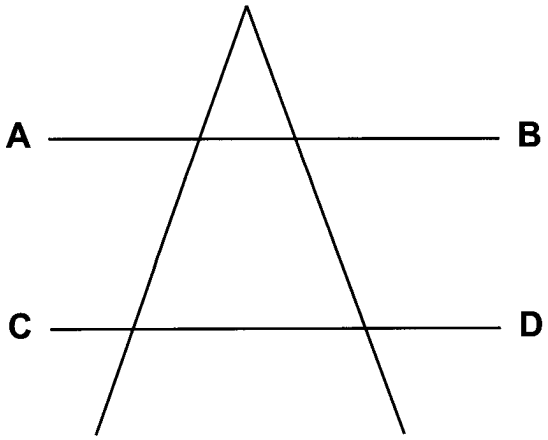
AB // CD ☐

(b)



AB // CD ☐

(c)



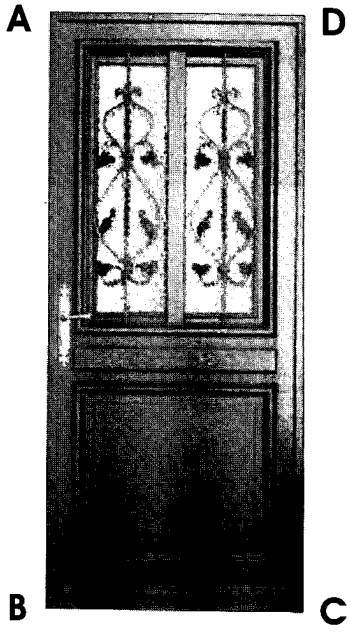
AB // CD ☐

WORKSHEET 23

Date: ____

Vertical and Horizontal Lines

1. Look at the figure of a door.



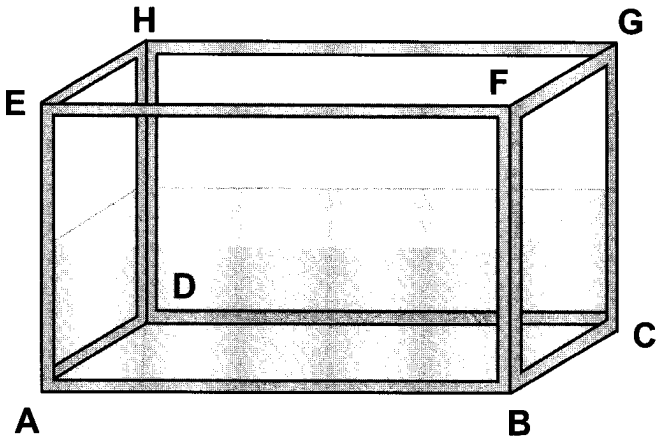
(a) In the figure, ____ and ____ are vertical lines.

(b) In the figure, ____ and ____ are horizontal lines.

(c) Name all the pairs of parallel lines.

(d) Name all the pairs of perpendicular lines.

2. The figure below shows a rectangular tank.



(a) Name all the vertical lines in the figure.

(b) Name all the horizontal lines in the figure.

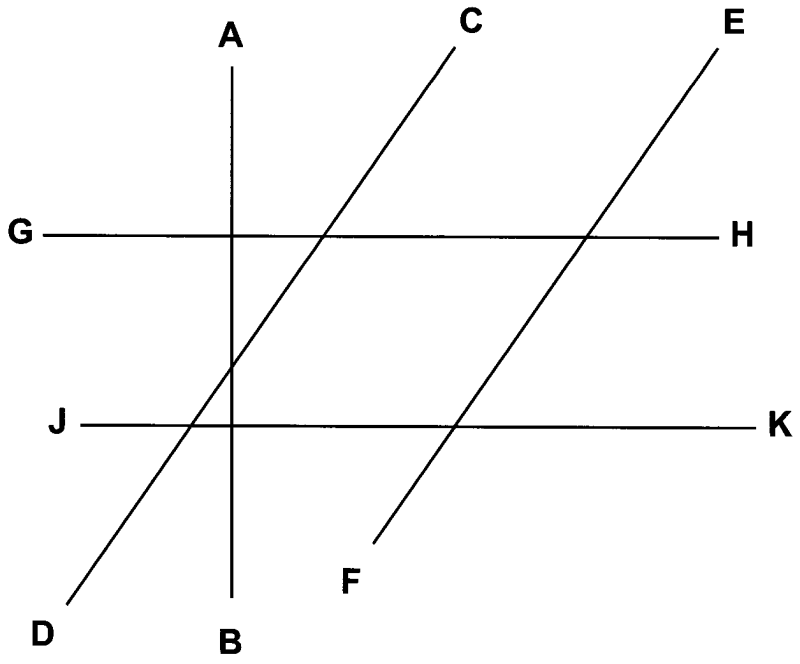
(c) Write down 3 pairs of parallel lines.

(d) Write down 3 pairs of perpendicular lines.

Practice 6

Date: ____

1. Name the pairs of parallel lines and perpendicular lines below.



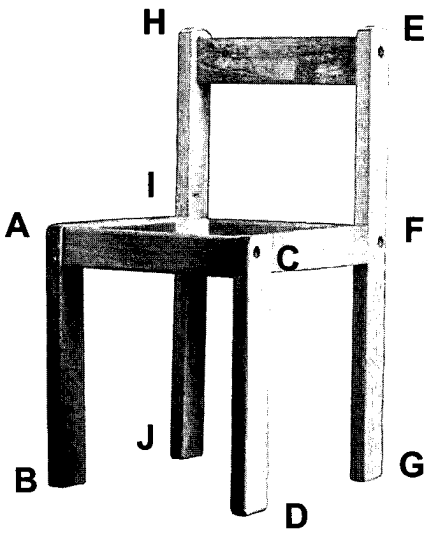
(a) ____ // ____

(b) ____ // ____

(c) ____ ⊥ ____

(d) ____ ⊥ ____

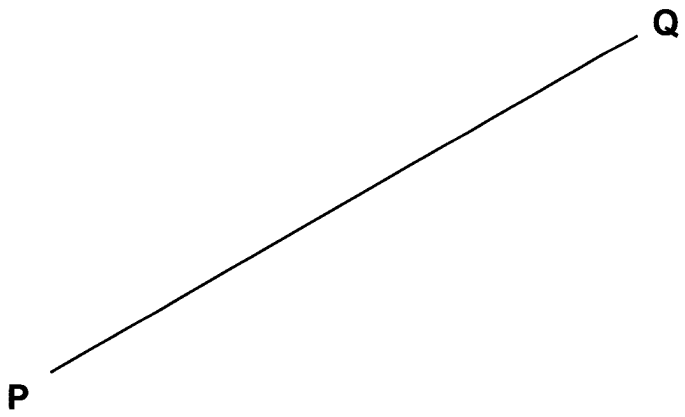
2. Look at the picture of a chair.



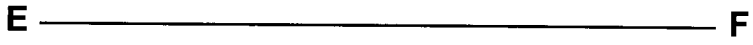
(a) Name all the vertical lines in the picture.

(b) Name all the horizontal lines in the picture.

3. Draw a straight line parallel to PQ.

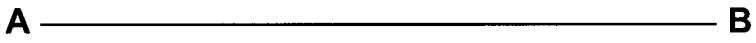


4. Draw a line parallel to EF passing through the point C.

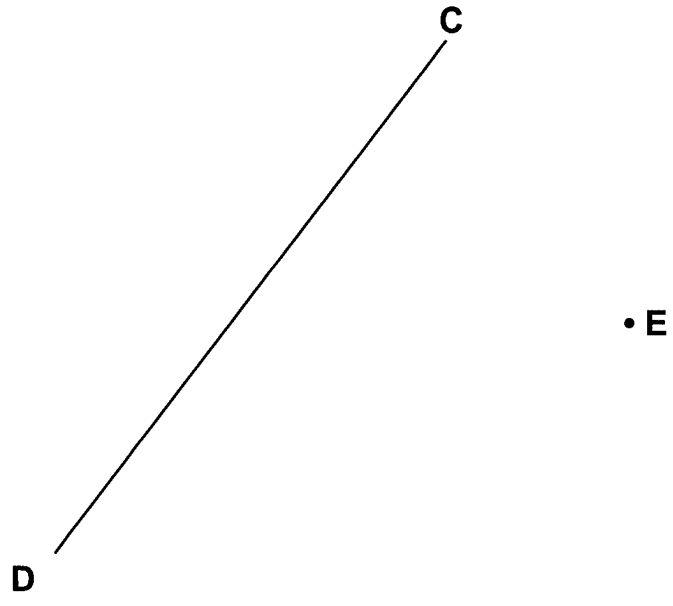


C •

5. Draw a straight line perpendicular to AB.



6. Draw a straight line perpendicular to CD passing through E.



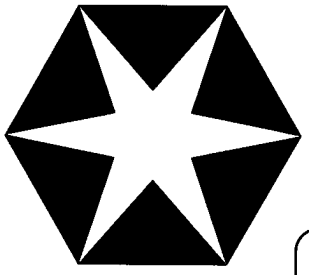
7 Symmetry

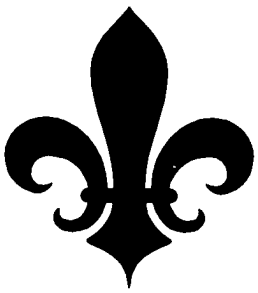
WORKSHEET 24

Date: ☐

Identifying Symmetric Figures

1. Identify the symmetric figures. Put a tick in the box if the figure is symmetric.

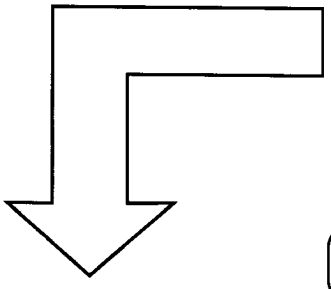
(a)  ☐

(b)  ☐

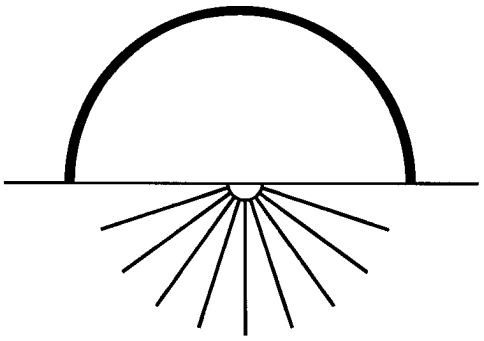
(c) T ☐

(d) R ☐

(e)  ☐

(f)  ☐

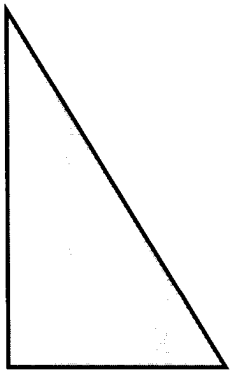
(g)



(h)

A

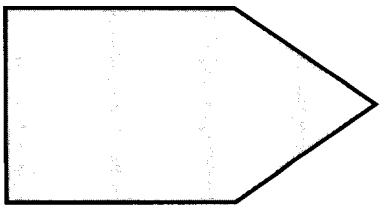
(i)



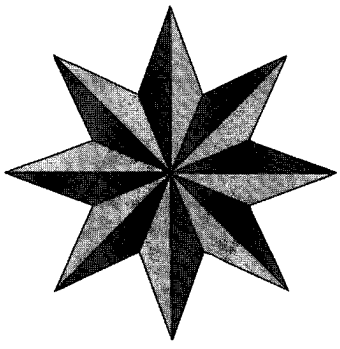
(j)

8

(k)

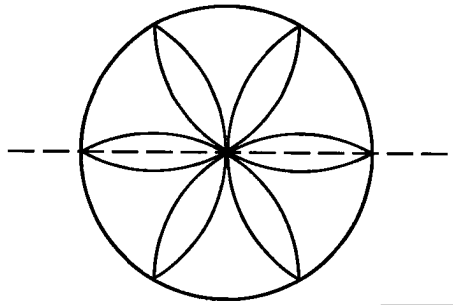


(l)

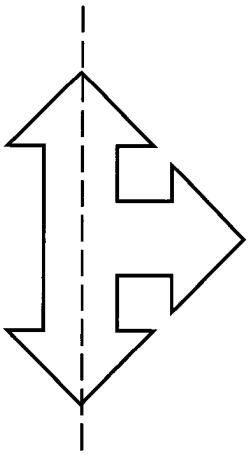


2. Put a tick in the box if the dotted line is a line of symmetry of the figure.

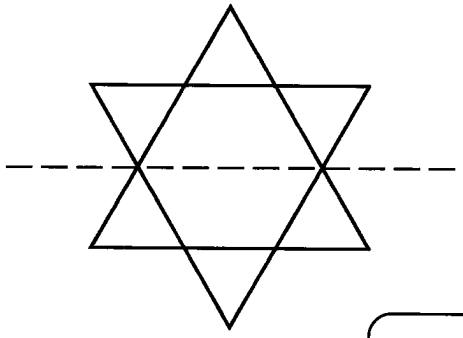
(a)



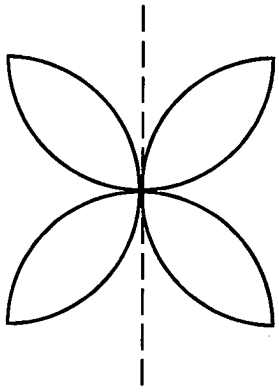
(b)



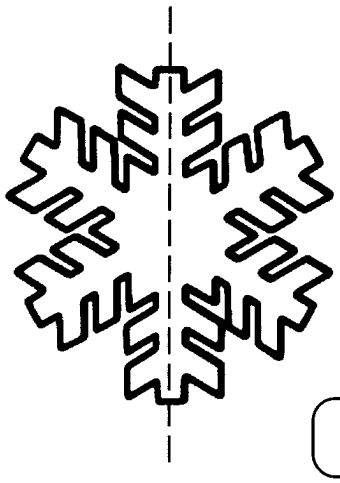
(c)



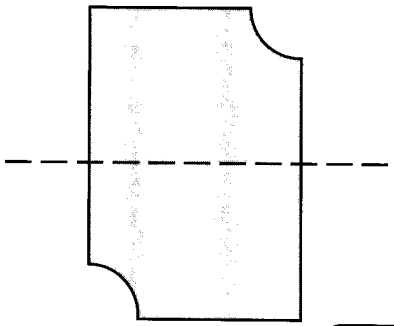
(d)



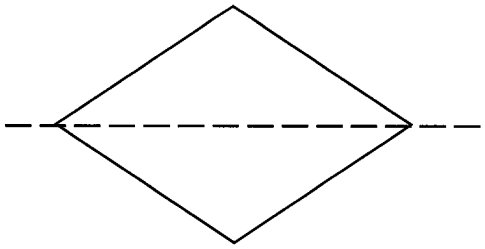
(e)



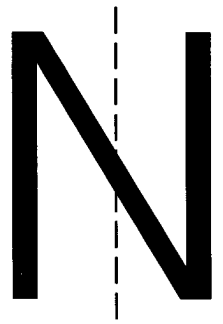
(f)



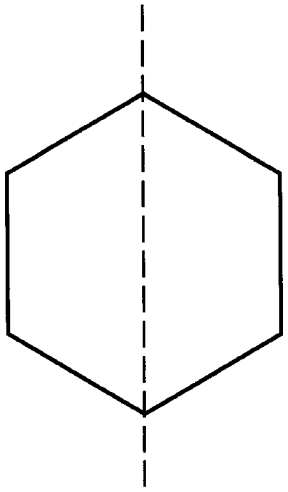
(g)



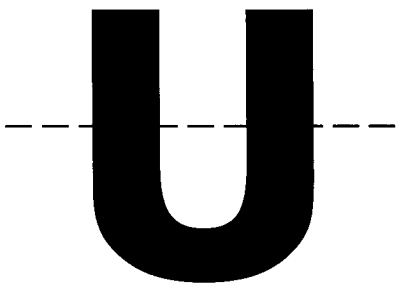
(h)



(i)



(j)

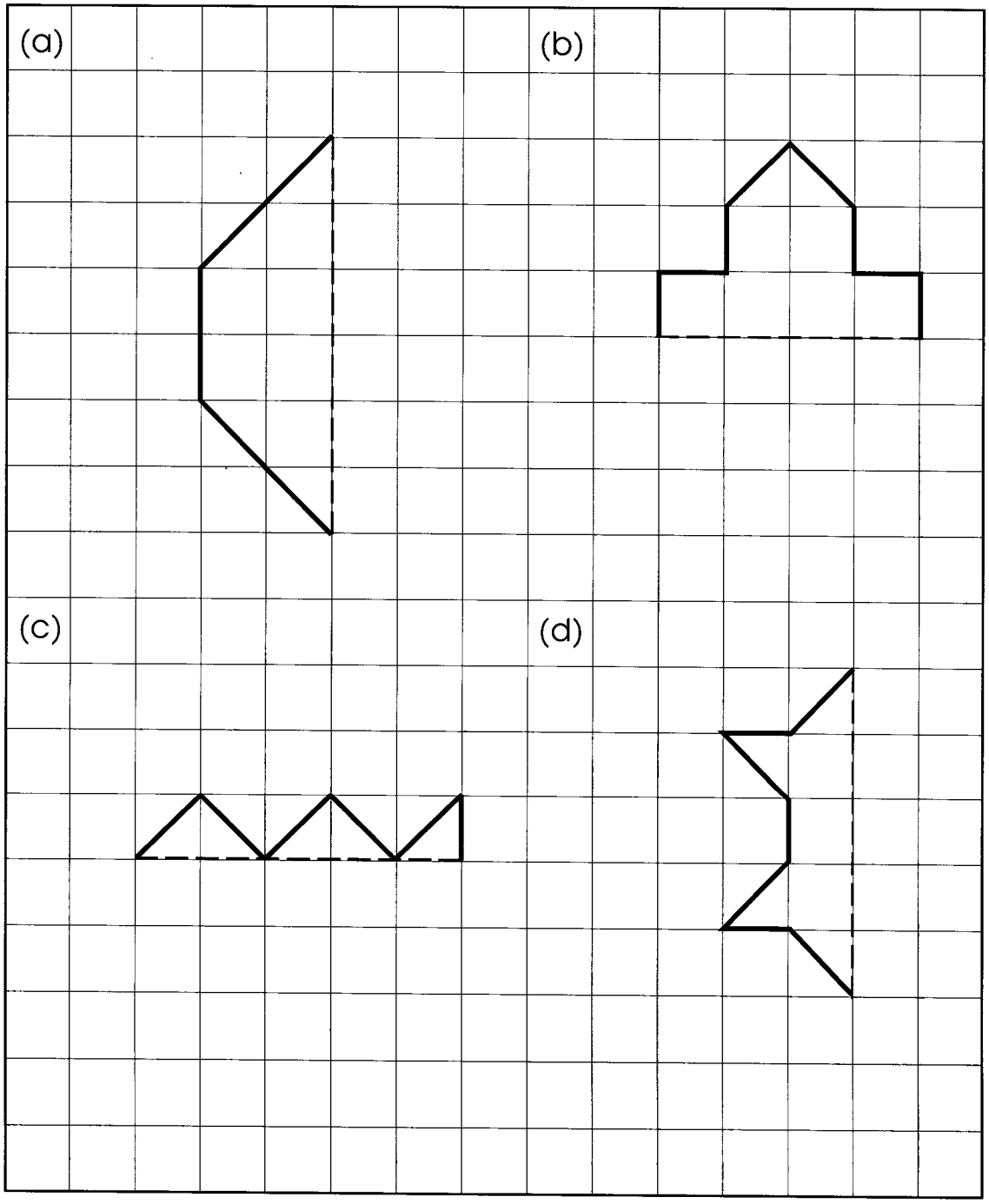


WORKSHEET 25

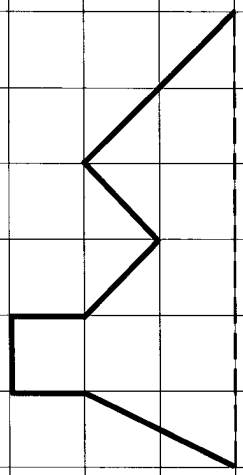
Date: _____

Completing Symmetric Figures

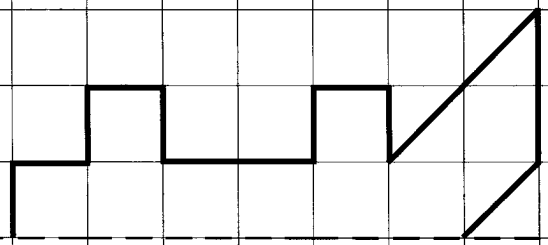
1. Complete the symmetric figure with the dotted line as the line of symmetry in each case.



(e)



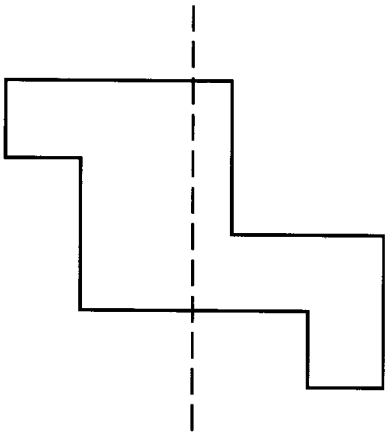
(f)

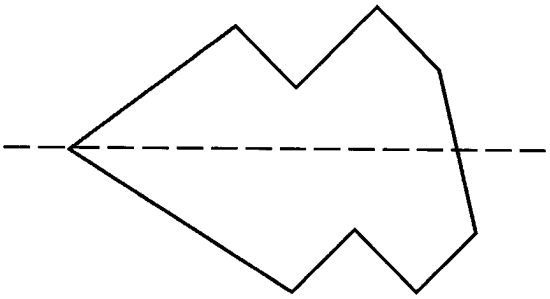


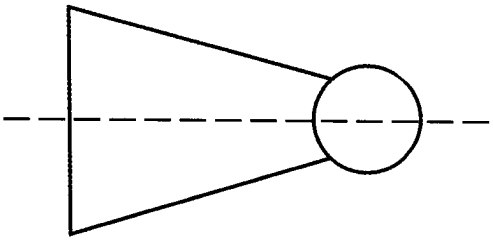
Practice 7

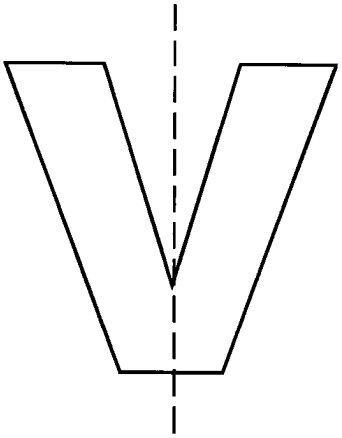
Date:

1. Look at the figures carefully. Shade the figure if the dotted line is a line of symmetry.



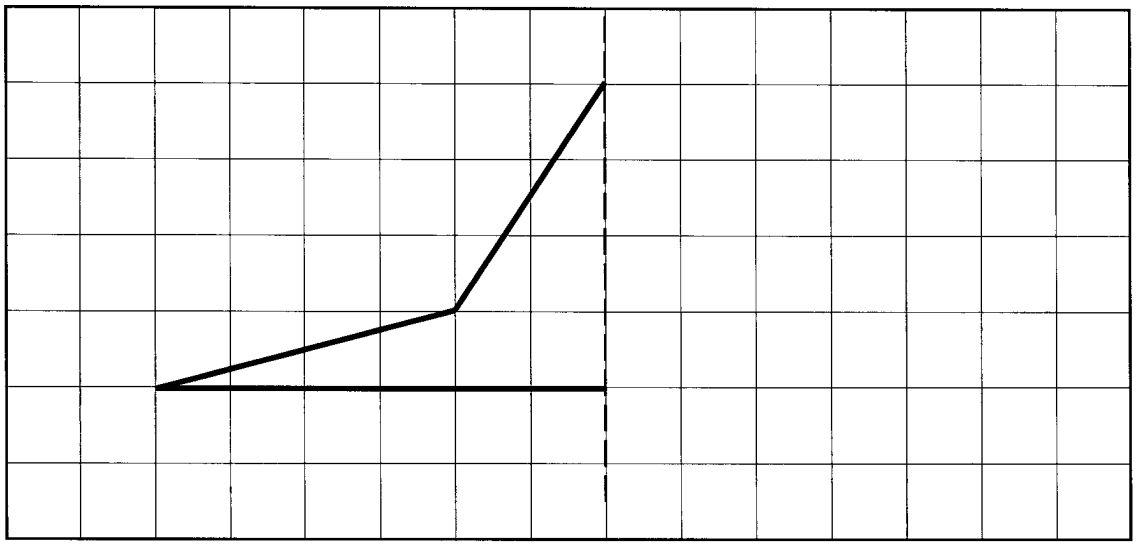




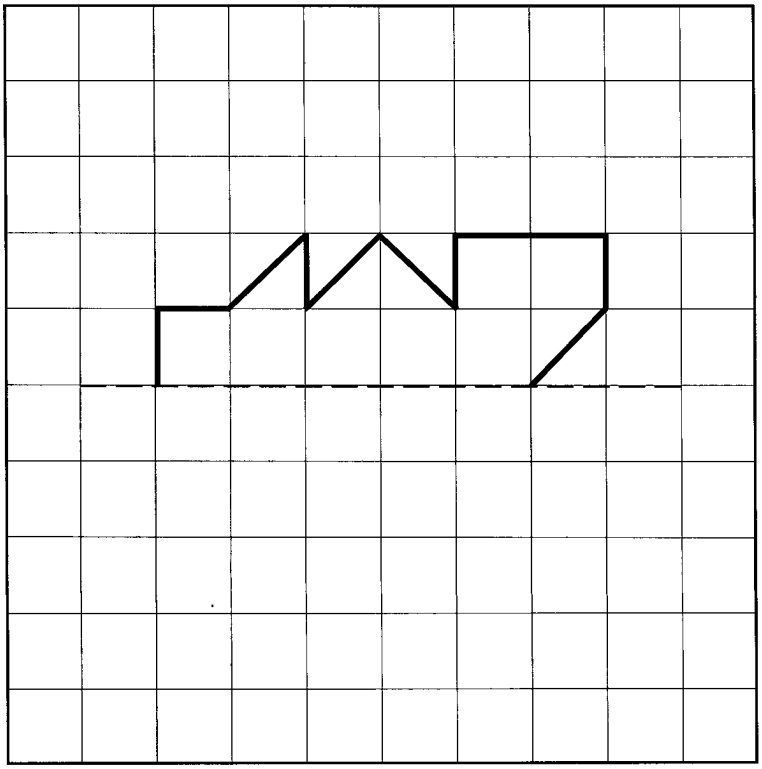


2. Complete the symmetric figures.

(a)

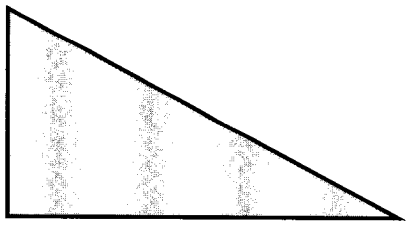


(b)



3. Circle the figures which are symmetric.

(a)



(b)

P

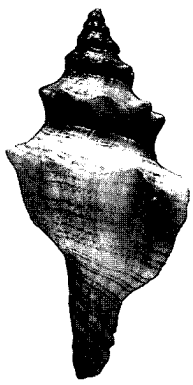
(c)

Q

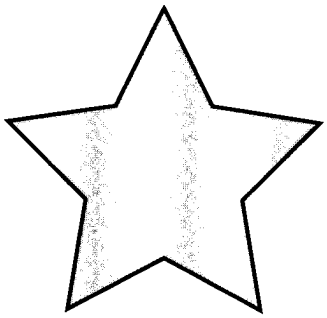
(d)

D

(e)



(f)



Revision 2A

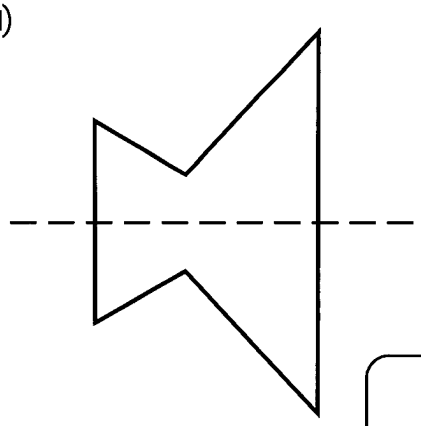
Date:

1. Calculate the following. Express your answers in the simplest form.

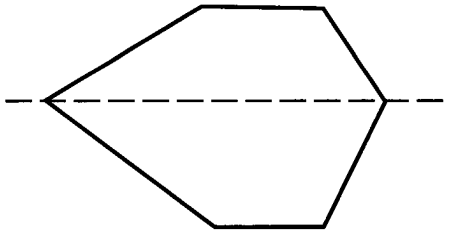
(a) $\frac{2}{3} \times 12$ =	(b) $\frac{3}{4} \times 28$ =
(c) $\frac{2}{5} \times 15$ =	(d) $\frac{1}{7} \times 24$ =
(e) $\frac{3}{8} \times 35$	(f) $\frac{7}{9} \times 21$

2. In each of the following figures, is the dotted line a line of symmetry? If yes, put a tick in the box.

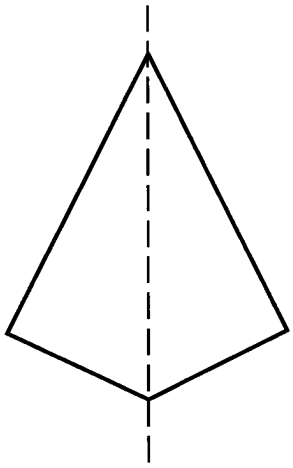
(a)



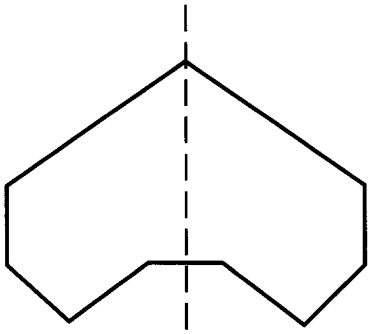
(b)



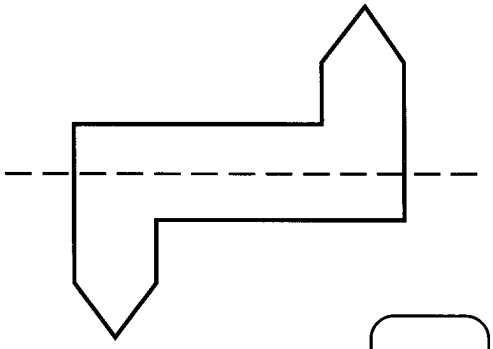
(c)



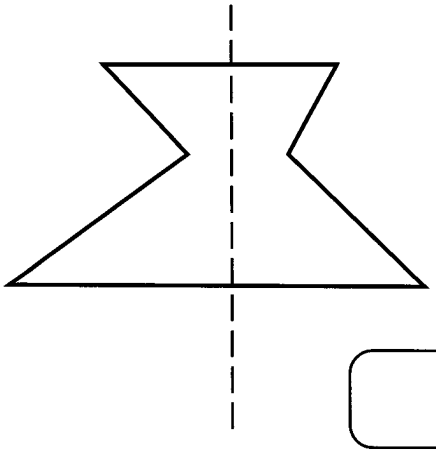
(d)



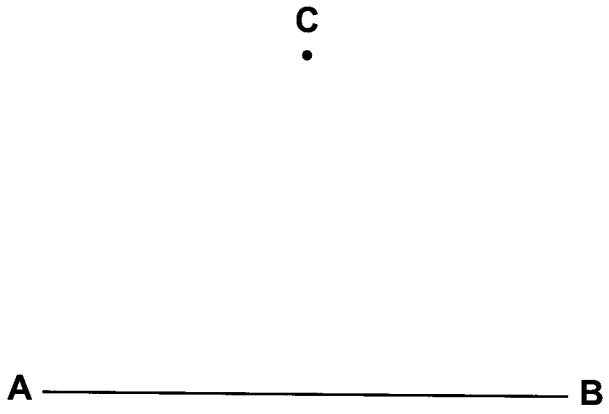
(e)



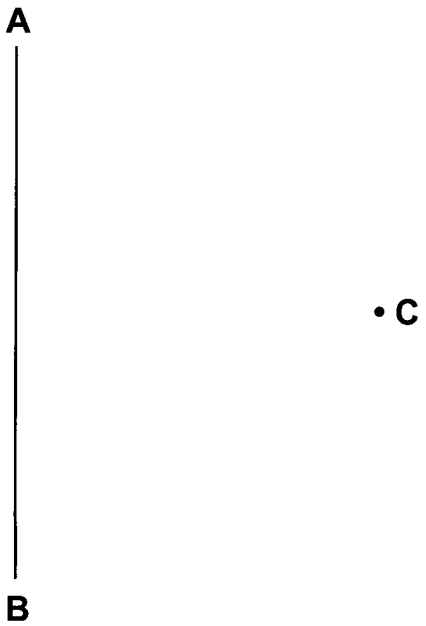
(f)



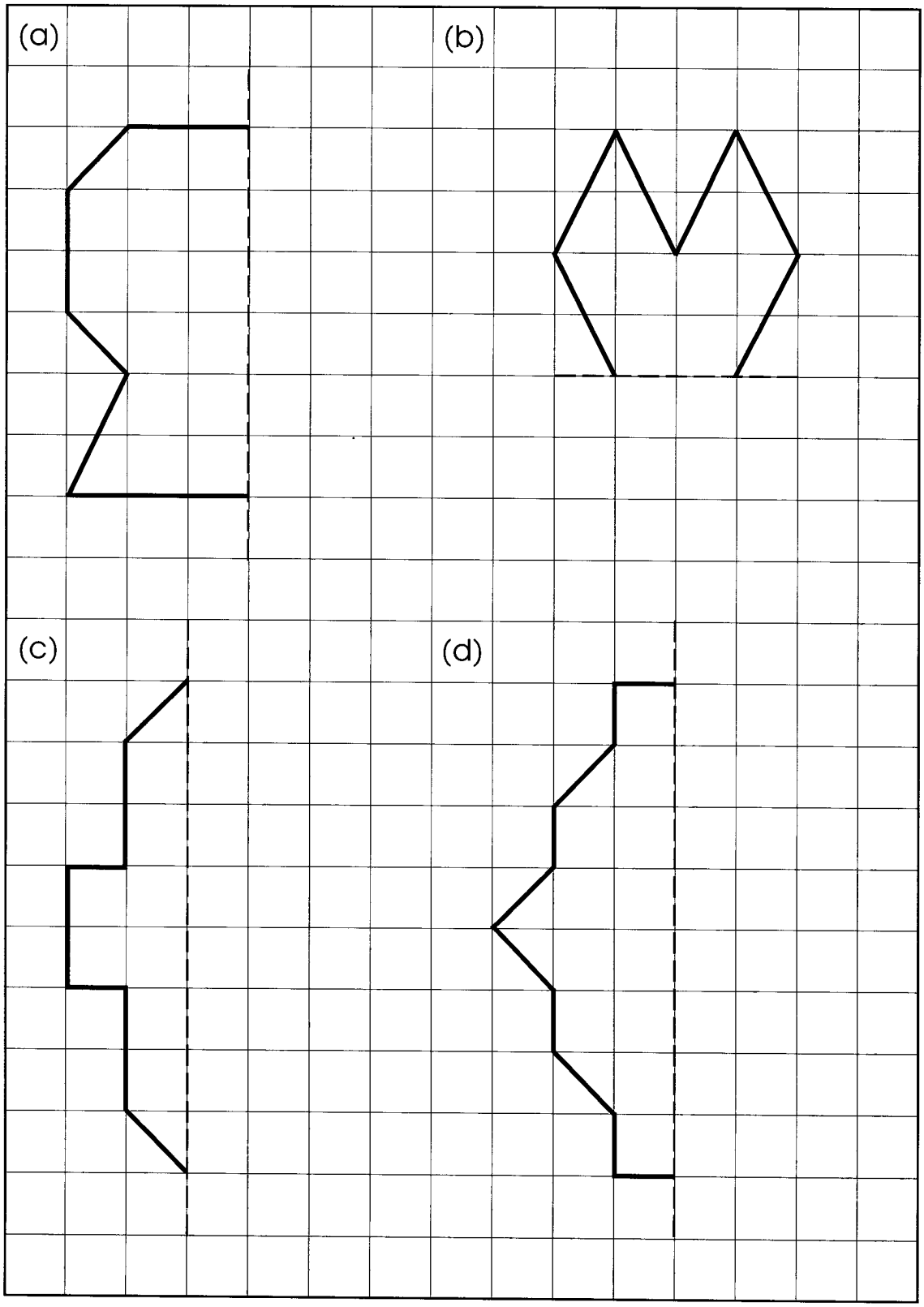
3. (a) Draw a line perpendicular to the line AB through point C.

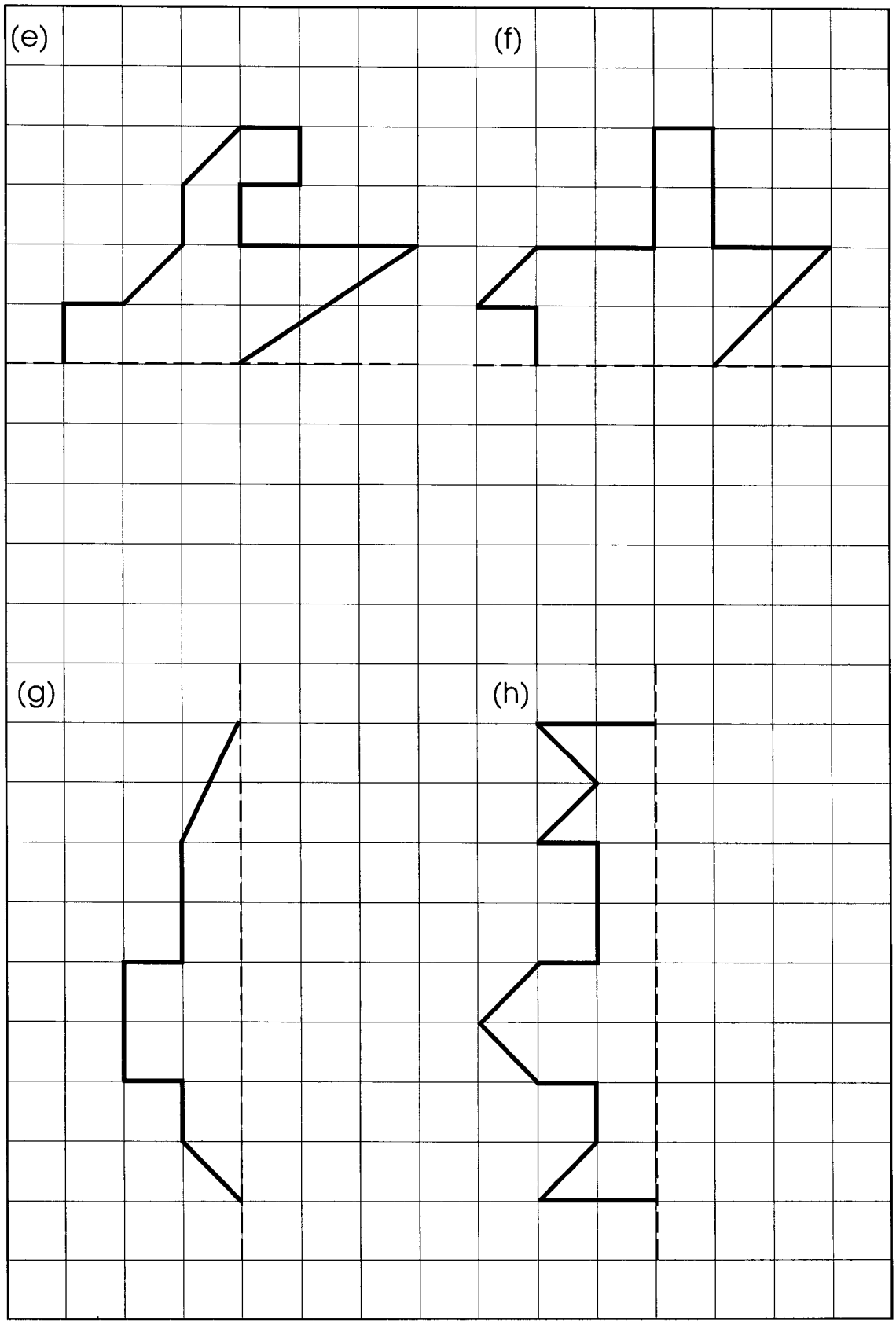


(b) Draw a line parallel to the line AB through point C.



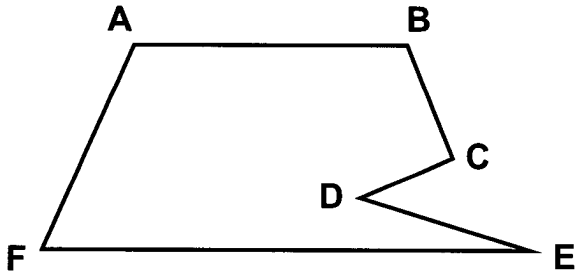
4. Complete the symmetrical figures below using the dotted line as a line of symmetry.




(e)
(f)
(g)
(h)

5. Name the pairs of perpendicular lines and parallel lines in the following figures.

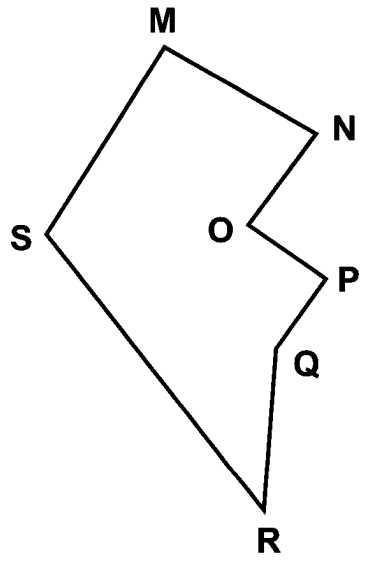
(a)



⊥

//

(b)



⊥

⊥

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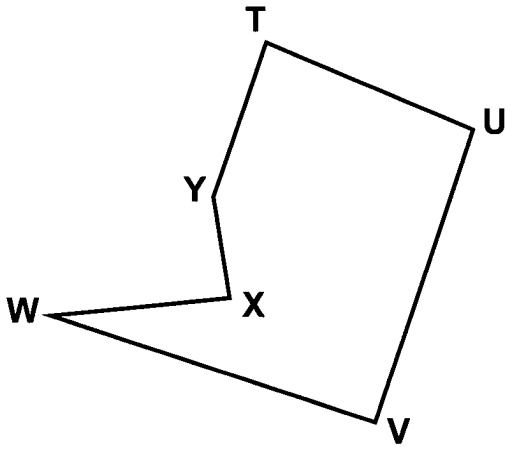
(c)



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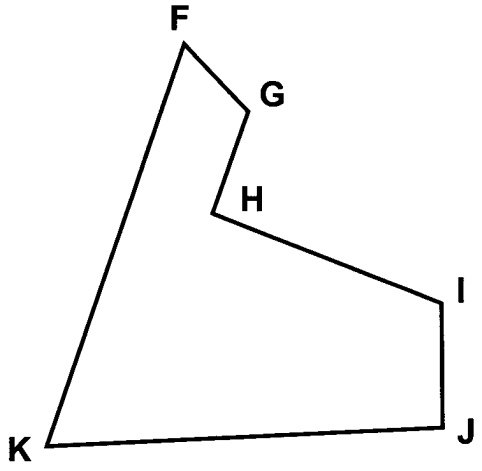
(d)



□ ⊥ □

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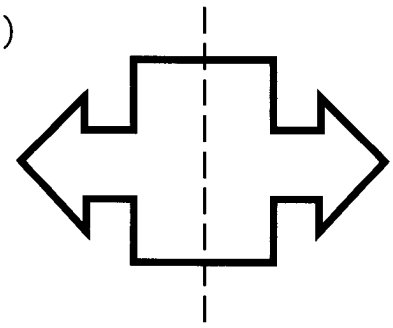
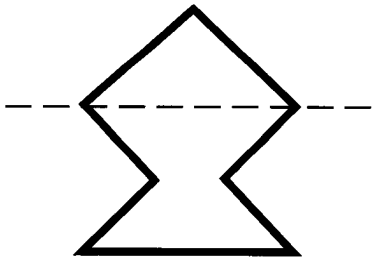
□ // □

6. Is the dotted line a line of symmetry in each of the following figures? If yes, put a tick in the box.

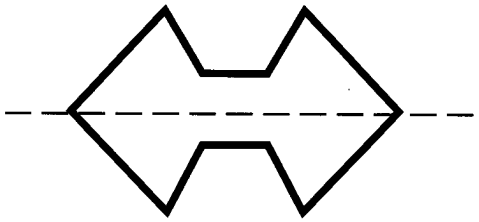
(a)



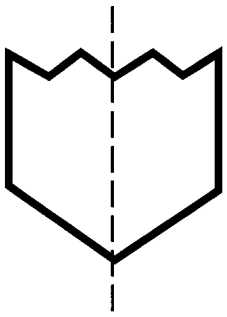
(b)



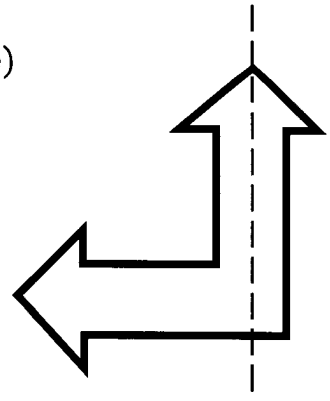
(c)



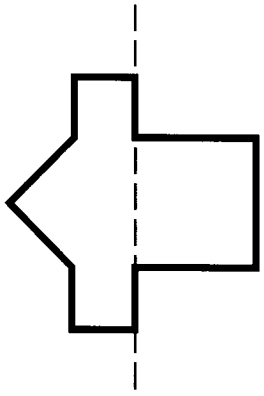
(d)



(e)

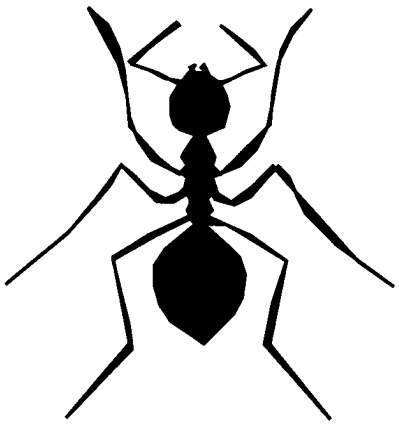


(f)

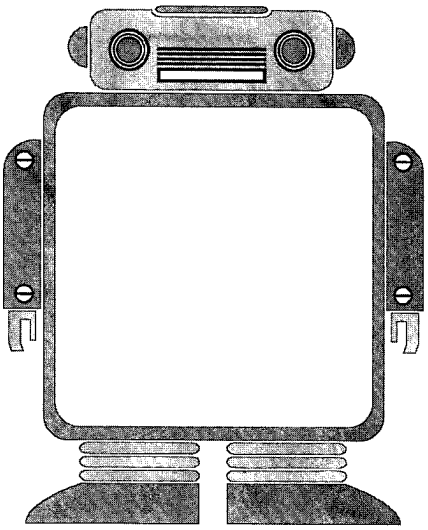


7. Circle the symmetric objects.

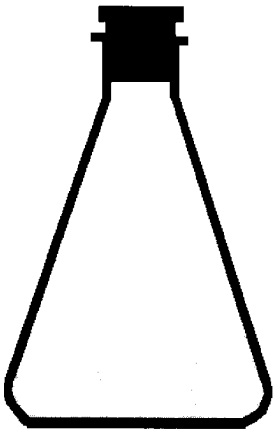
(a)



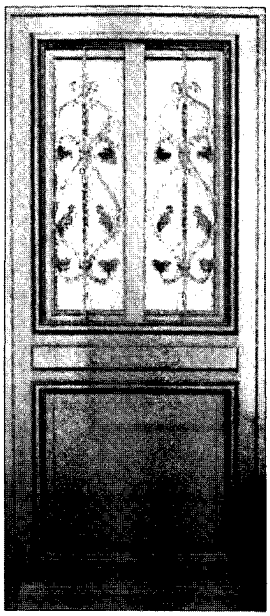
(b)



(c)



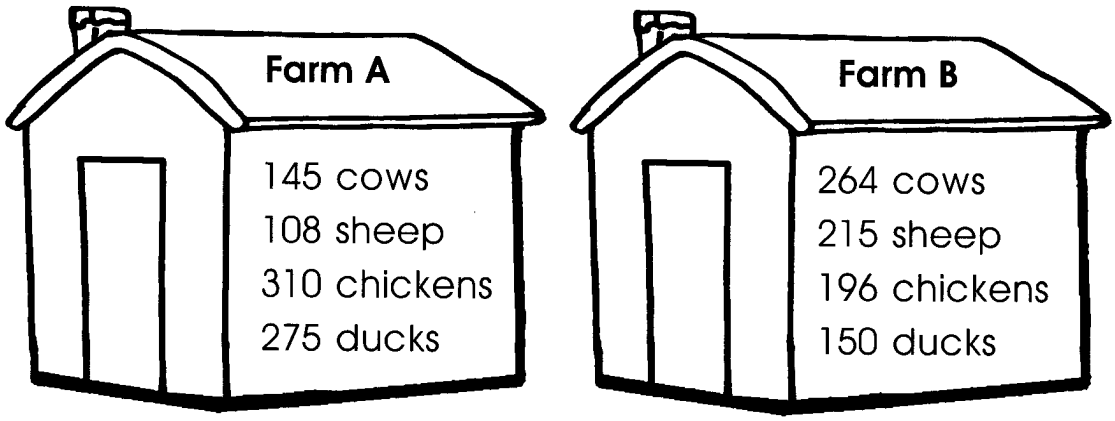
(d)



8. A secondary school has 30 teachers. $\frac{4}{5}$ of them are female. How many female teachers are there in the school?

9. 21 students shared some pizzas for lunch. Each student ate $\frac{1}{3}$ of a pizza. How many pizzas did they eat altogether?

10. The information below shows the number of cows, sheep, chickens and ducks in two farms.



Present the data in the table below and answer the following questions.

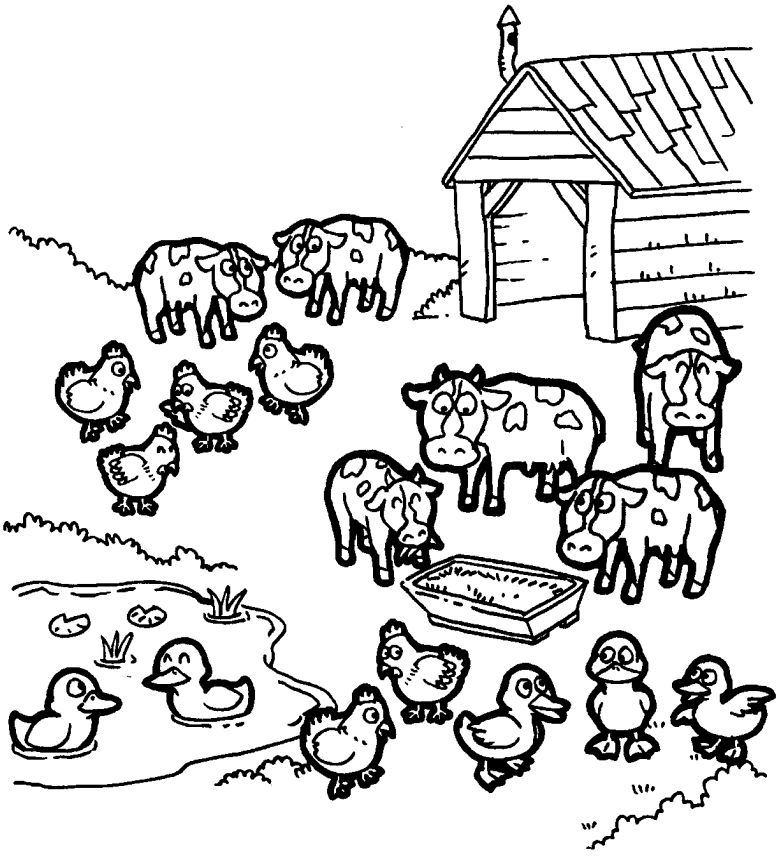
	Farm A	Farm B
Number of cows		
Number of sheep		
Number of chickens		
Number of ducks		

(a) Which farm has more chickens?

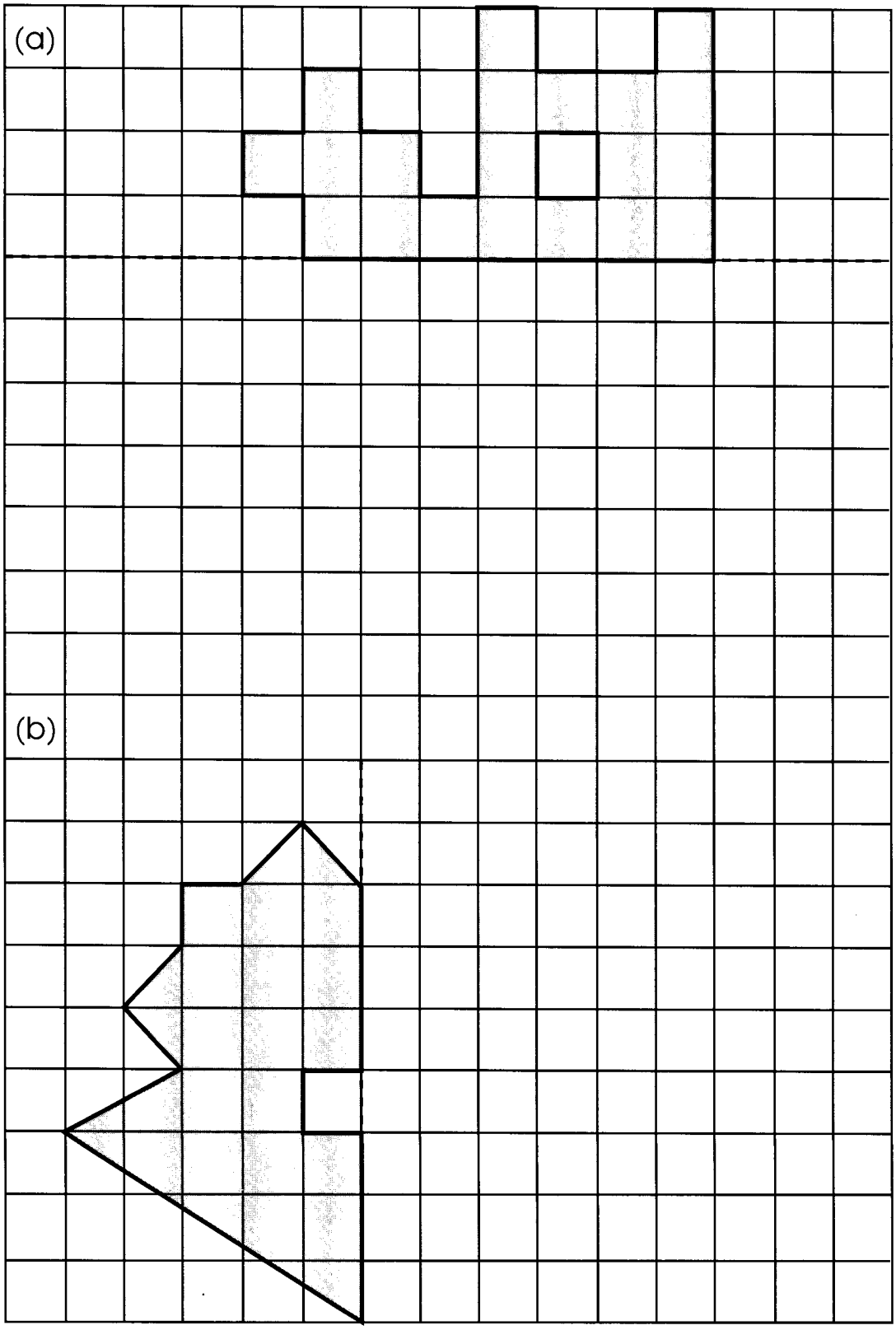
How many more?

(b) How many cows and sheep does Farm B have altogether?

(c) How many animals are there altogether on Farm A?



10. Use the dotted line as a line of symmetry. Complete each of the following symmetric figures.

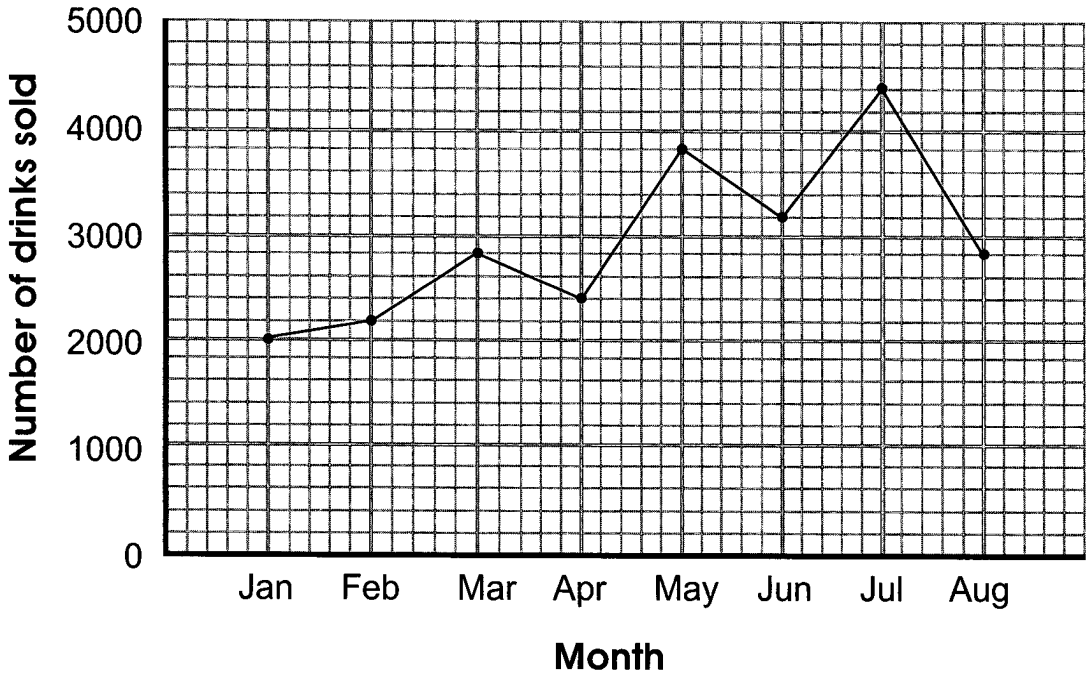


12. Peter had \$350. After he spent $\frac{1}{7}$ of his money on a radio, how much money had he left?

13. There are 2100 pupils in a school. $\frac{1}{3}$ of the pupils are girls. $\frac{1}{5}$ of the girls can swim. How many girls can swim?

14. Answer the following questions using the line graph below.

The line graph below shows the monthly sales of a drink seller from January to August.



Study the line graph and answer the following questions:

(a) In which month did the drink seller sell 2400 drinks? ( )

(b) In which month was the sales the highest? ( )

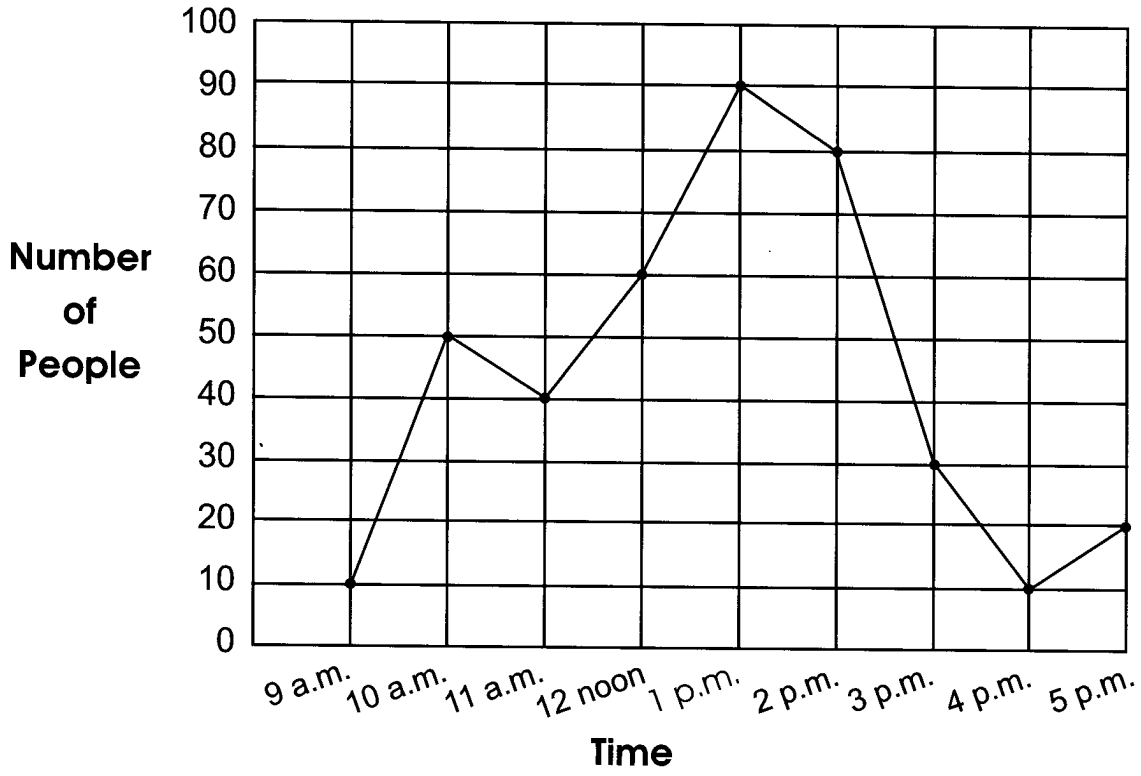
(c) In which month was the sales the lowest? ( )

(d) What was the total number of drinks sold from June to August? ( )

15. Min invited 50 friends to her birthday party but 8 of them did not turn up. $\frac{1}{7}$ of those who turned up were boys. How many boys turned up for the party?

16. Siti had $\frac{3}{4}$ m of cloth and Jane also had a certain length of cloth. After Siti gave $\frac{1}{8}$ m of her cloth to Jane, they had the same length of cloth. How much cloth did Jane have at first?

17. The line graph shows the number of people in a restaurant on a weekend.



(a) How many people were there in the restaurant at 1 p.m.?

(b) What was the increase in the number of people in the restaurant between 11 a.m. and 1 p.m.?

(c) What was the decrease in the number of people between 10 a.m. and 11 a.m.?

(d) In which period of time was the drop in the number of people in the restaurant the greatest?

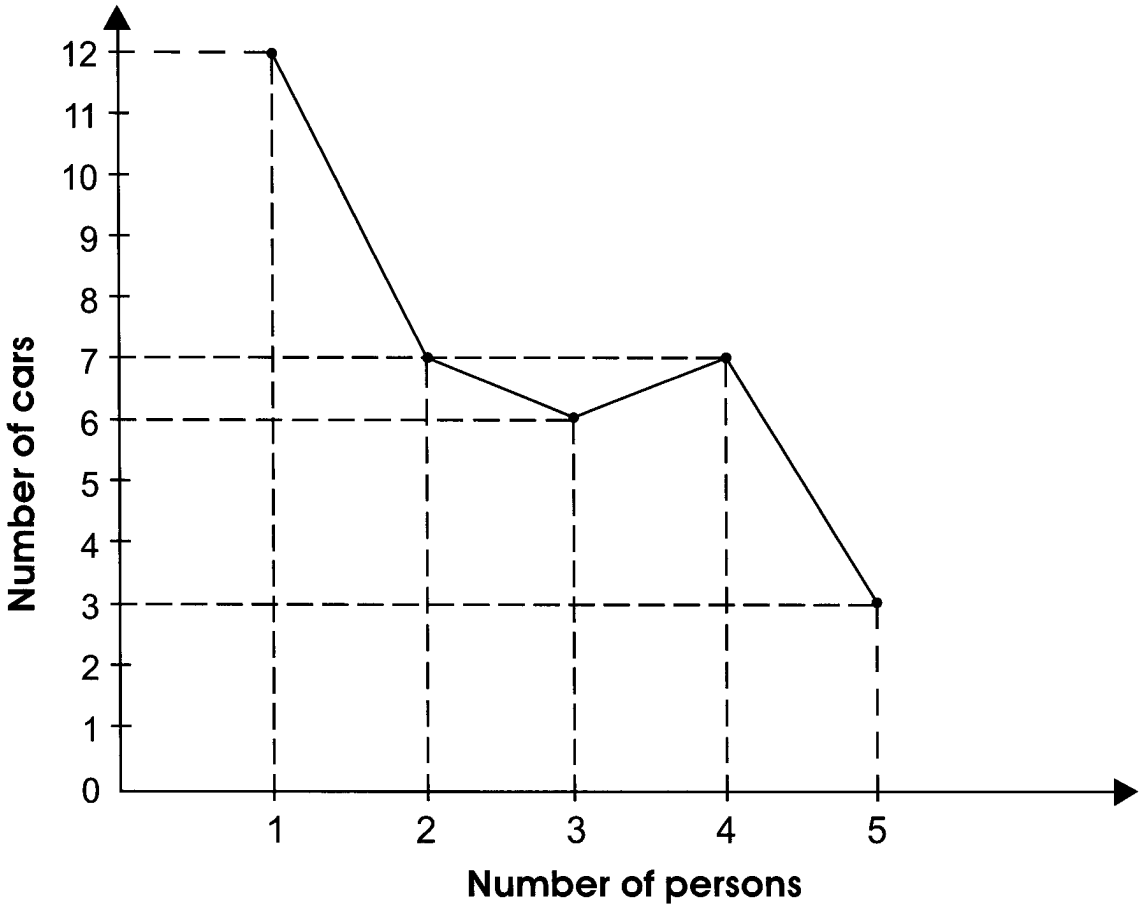
Revision 2B

Date:

1. Peter was given \$70. He spent $\frac{1}{5}$ of it on Saturday and \$21 on Sunday. How much money did he spend altogether?

2. John travelled $\frac{2}{5}$ of a journey on Monday. He travelled $\frac{3}{10}$ of the journey on Tuesday and completed the rest of the journey on Wednesday. What fraction of the journey did he travel on Wednesday?

3. John carried out a traffic survey of cars passing by the school gate to record the number of persons in each car. The line graph below shows the results of his survey.



(a) Find the total number of cars involved in John's survey.

(b) How many cars are there with just the driver alone?

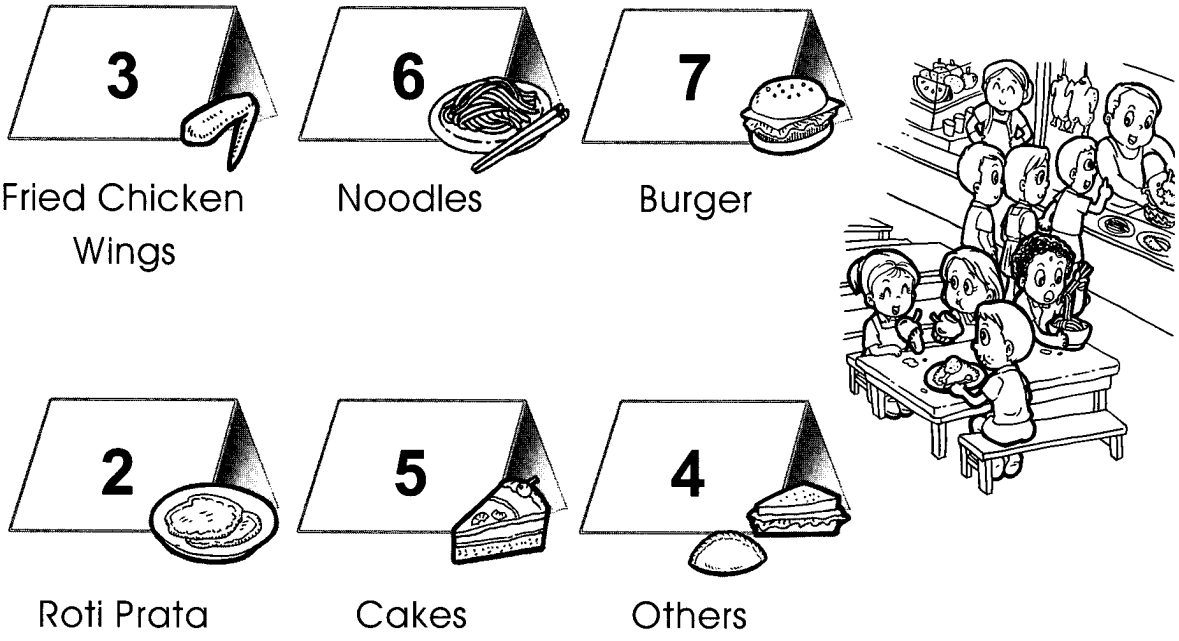
(c) How many cars have three people in them?

(d) How many cars have the most number of people in them?

4. Mark's uncle had 120 picture cards. Mark received $\frac{1}{8}$ of the picture cards from his uncle. His sister, May, received 20 more picture cards than he. How many picture cards did May get?

5. In a class, there are 25 girls and 15 boys. Express the number of the boys as a fraction of the total number of children in the class. Give your answer in its simplest form.

6. The information shows the different types of food bought by the pupils of Class 4A during recess in a school canteen. Present this information in the table below. Then solve the problems that follow.



Types of food	Number of pupils
Fried chicken wings	
Noodles	
Burger	
Roti Prata	
Cakes	
Others	

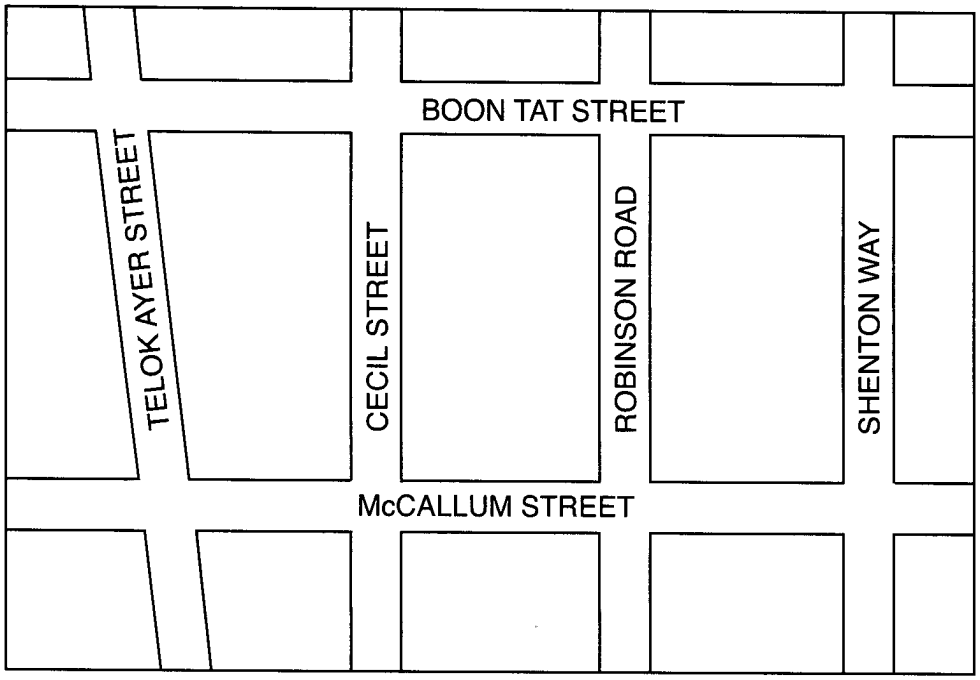
(a) How many more pupils bought noodles than Roi Prata?

(b) How many fewer pupils bought fried chicken wings than burger?

(c) How many pupils bought fried chicken wings and cakes altogether?

(d) What is the total number of pupils in Class 4A buying food during recess in the canteen?

7. Look at the road map shown below and answer the following questions.



Study the road map and answer the following questions:

(a) Name the roads that are parallel to Shenton Way.

_____ and _____

(b) Name the roads that are perpendicular to Shenton Way.

_____ and _____

(c) Which roads are perpendicular to Cecil Street?

_____ and _____

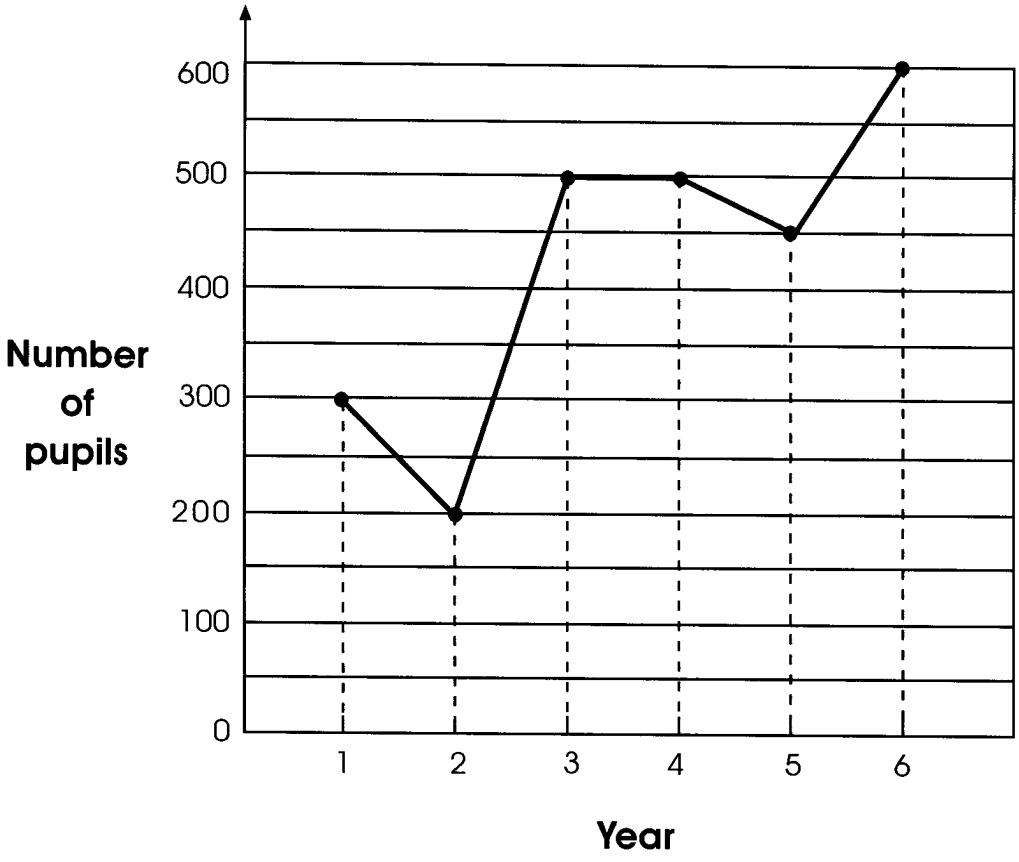
(d) Which road is parallel to McCallum Street?

_____

8. 161 people applied for a job. $\frac{6}{7}$ of them were not selected for interview. How many people were selected for the interview?

9. John has $720. He spends $\frac{5}{9}$ of it. How much money has he left?

10. The line graph shows the number of pupils who applied to study at a school over a period of 6 years.



Using the information provided above, complete the following table and answer the questions:

(a)

Year	1	2	3	4	5	6
Number of Pupils						

(b) In which year was there the least number of students who applied to study at the school?

(c) In which year was there the greatest number of students who applied to study at the school?

(d) In which two years were there the same number of students who applied to study at the school?

(e) How many more students applied in the sixth year than in the first year?

(f) How many students applied in the first 5 years altogether?

(g) How many fewer students applied in the first three years than in the last three years?

11. Circle the symmetric figures.

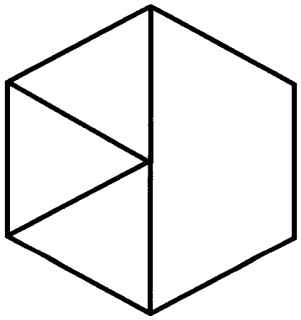
(a)

X

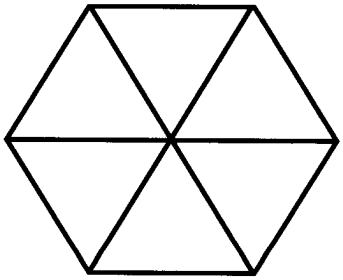
(b)

Z

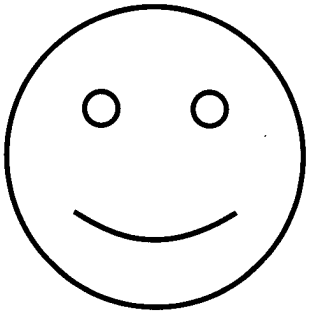
(c)



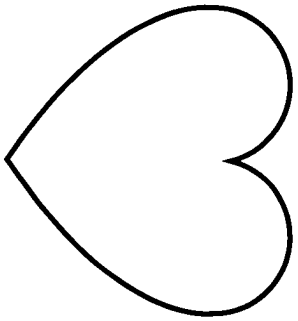
(d)



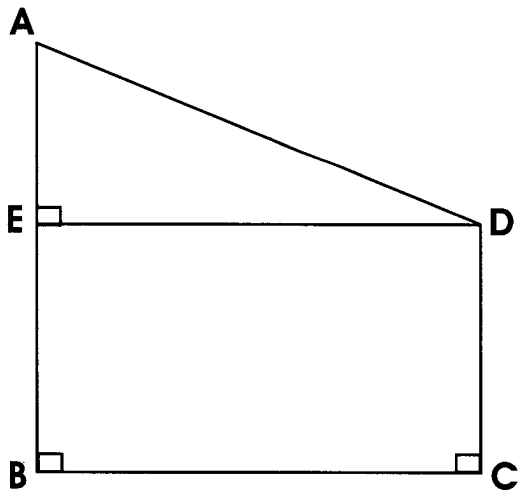
(e)



(f)



12. A figure is given below.



(a) Name 4 pairs of perpendicular lines in the figure:

_____ and _____

_____ and _____

_____ and _____

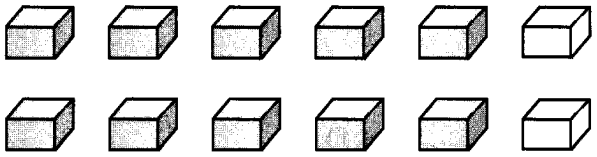
_____ and _____

(b) Name 2 pairs of parallel lines in the figure:

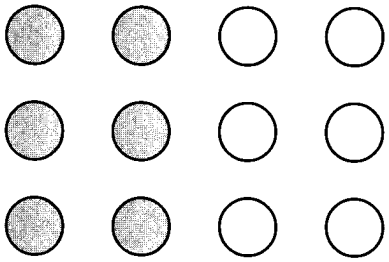
_____ and _____

_____ and _____

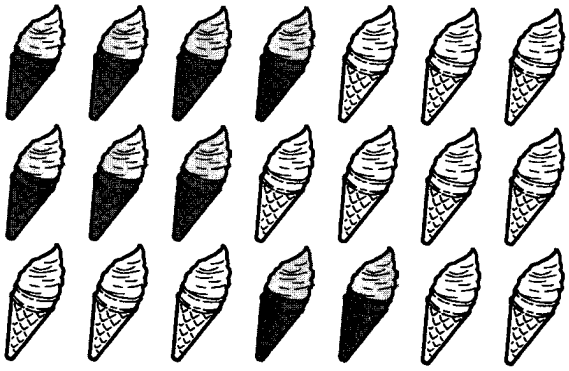
13. What fraction of each set is shaded? Express your answers in the simplest form.

(a) 

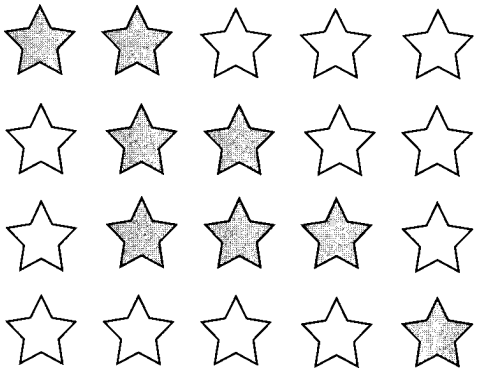
$\frac{\square}{\square} = \frac{\square}{\square}$

(b) 

$\frac{\square}{\square} = \frac{\square}{\square}$

(c) 

$\frac{\square}{\square} = \frac{\square}{\square}$

(d) 

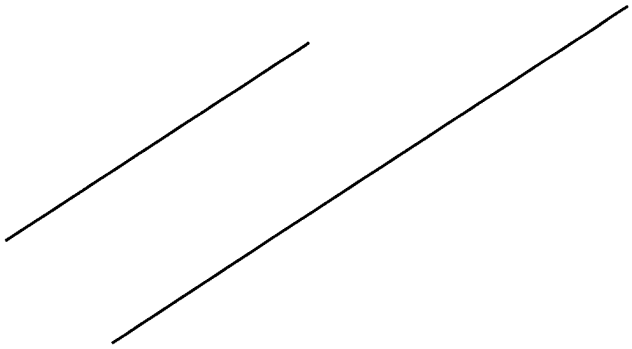
$\frac{\square}{\square} = \frac{\square}{\square}$

14. In Class 4A, there are 30 pupils. 16 of them are girls. What fraction of the pupils in Class 4A are boys? Give your answer in the simplest form.

15. Mary collected 45 foreign stamps and 20 local stamps last month. What fraction of the stamps were local stamps? Give your answer in the simplest form.

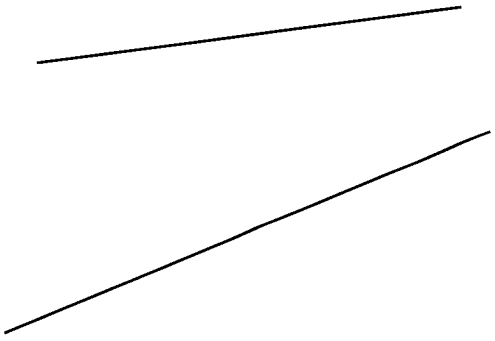
16. Use a ruler and a set square to check if each of the following pairs of lines are parallel. Put '✓' or '✗' in each box.

(a)



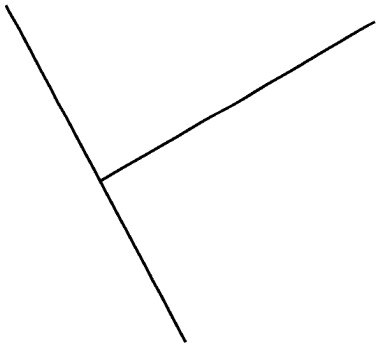
(b)

(c)

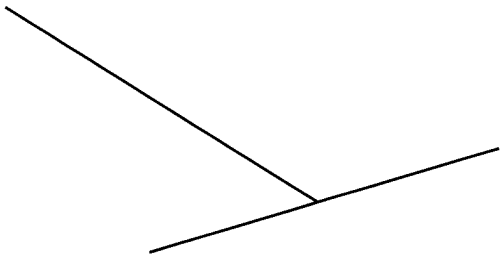


17. Use a set square to check whether each of the following pairs of lines are perpendicular. Put '✓' or '✗' in each box.

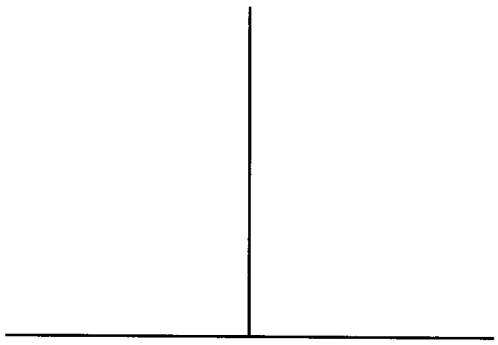
(a)



(b)



(c)



18. Mary had 32 marbles. She gave Peter $\frac{1}{4}$ of her marbles. How many marbles had she left?

19. There were 10 pizzas. $\frac{5}{6}$ of the pizzas were eaten. How many pizzas were eaten?