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THINKING MATHEMATICS WORKBOOK 2

1B

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40 Let's Revise!

Exercise three 37

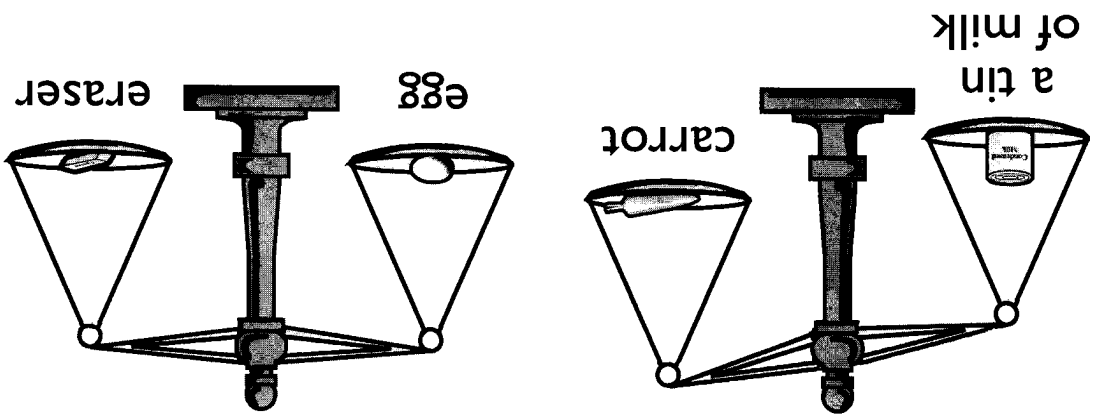
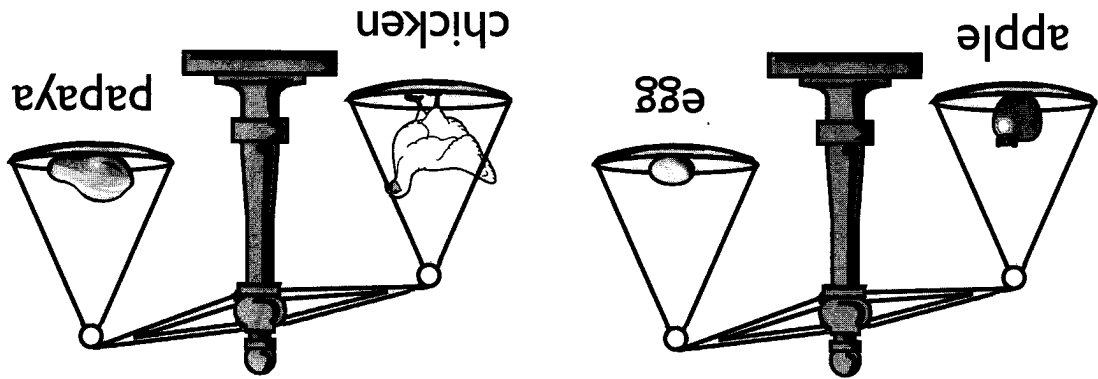
Exercise two 33

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30 Picture Graphs

★ Exercise one

1. Look at the objects on the balances. Then fill in the blanks with 'heavier than' or 'lighter than'.



(a) The apple is _____ the egg.

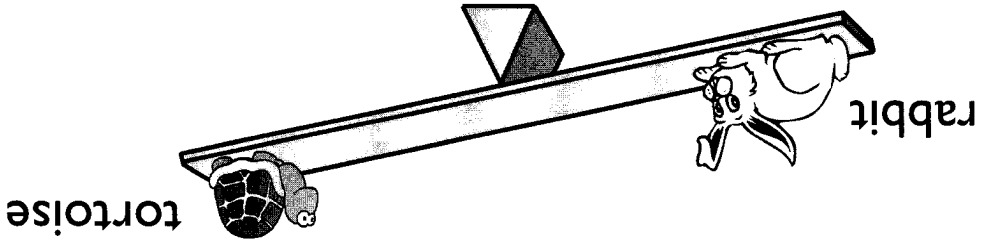
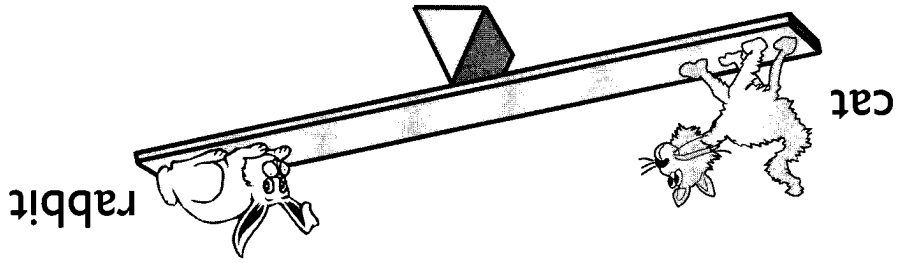
(b) The papaya is _____ the chicken.

(c) The tin of milk is _____ the carrot.

(d) The eraser is _____ the apple.

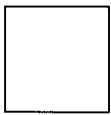
The _____ is the heaviest.

The _____ is the lightest.

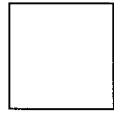


3. Look at the pictures. Then fill in the blanks.

a bucket of water

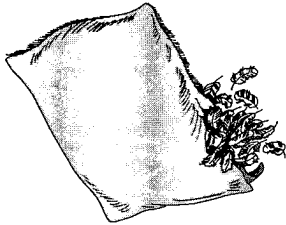
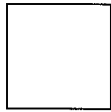


a bucket of popcorn

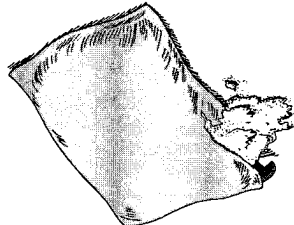


(b)

a bag of feathers



a bag of sand

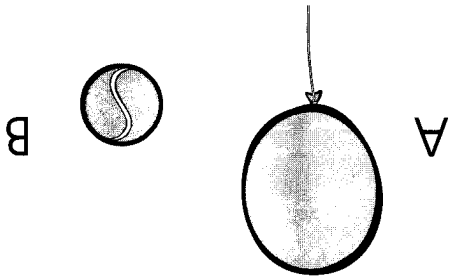


(a)

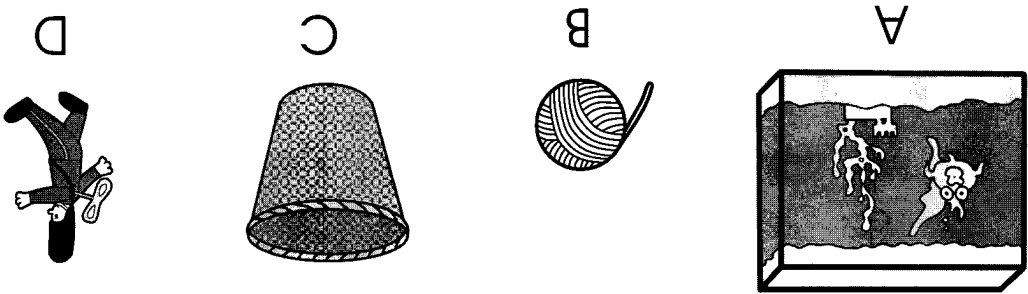
2. Tick the heavier item in each set.

4. Ring the correct object.

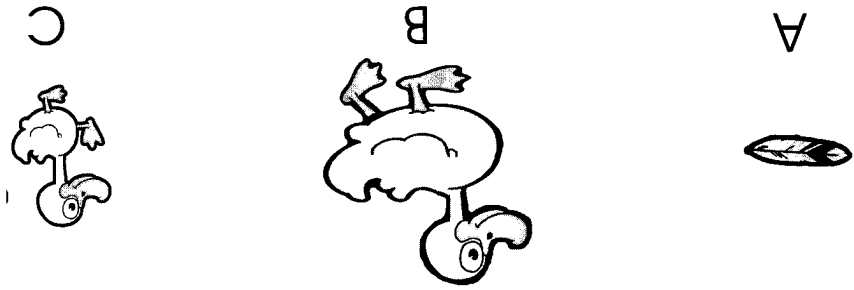
(a) Which has a greater mass?



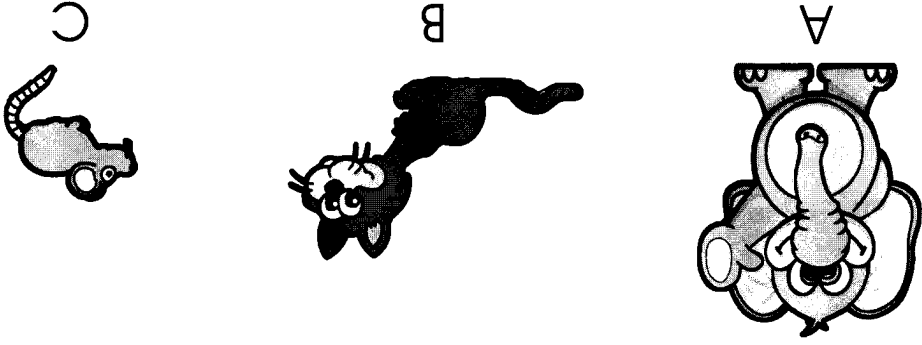
(b) Which is the heaviest?



(c) Which is the lightest?



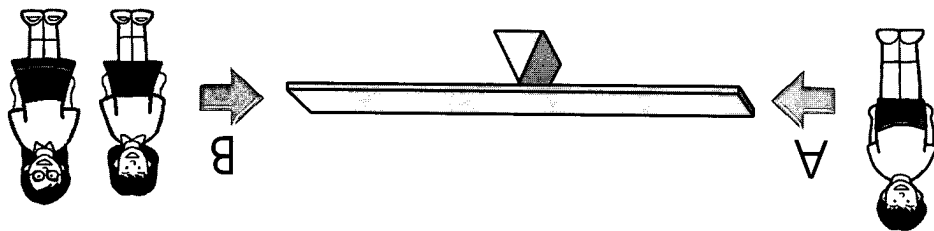
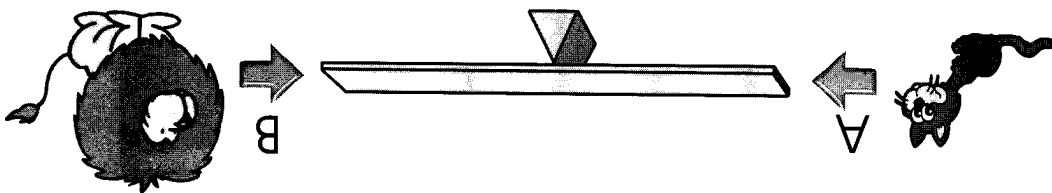
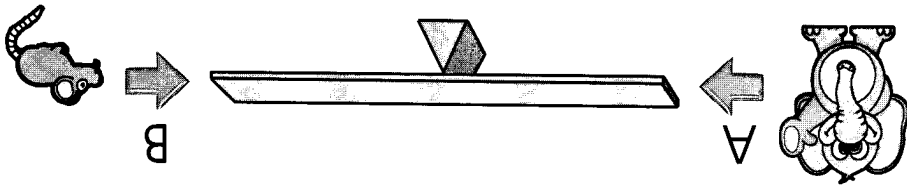
(d) Which has the smallest mass?



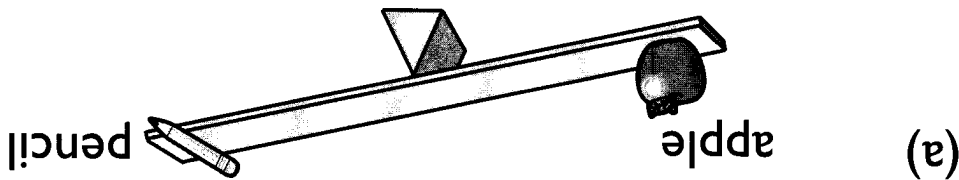
Exercise two



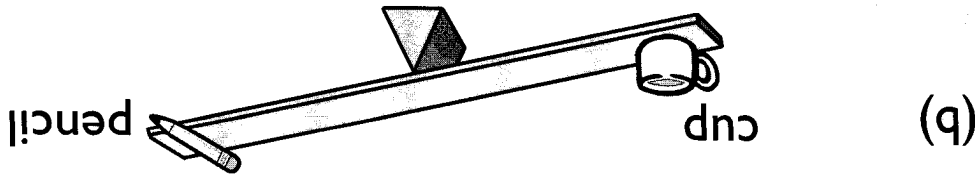
5. Which side of the see-saws will be heavier? Circle A or B.



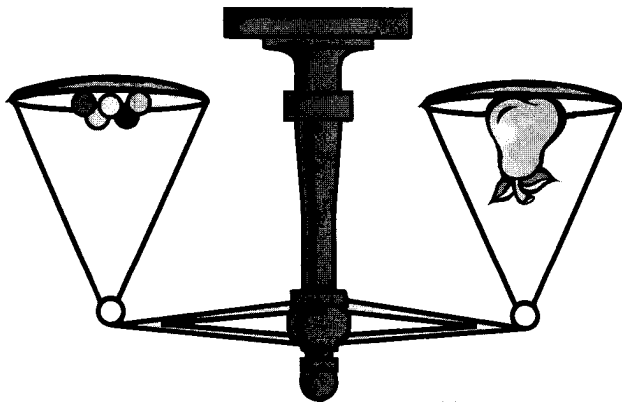
6. Which is lighter?



The _____ is lighter than the _____.



The _____ is lighter than the _____.



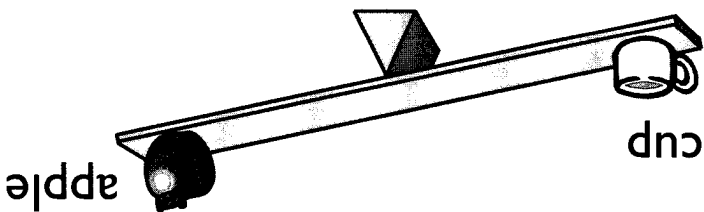
7. Fill in the blanks.
 (a) Take ● as 1 unit.

The mass of the pear is _____ units.

lightest _____ heaviest

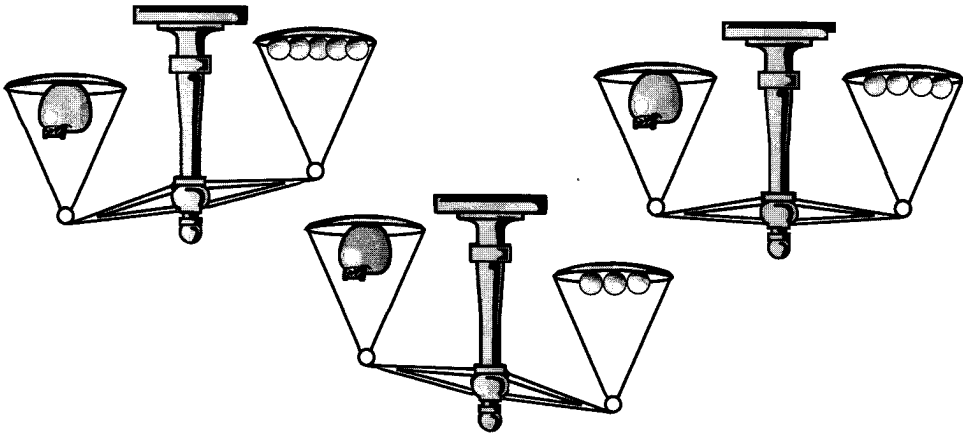
Name the three objects from the lightest to the heaviest.

The _____ is lighter than the _____.



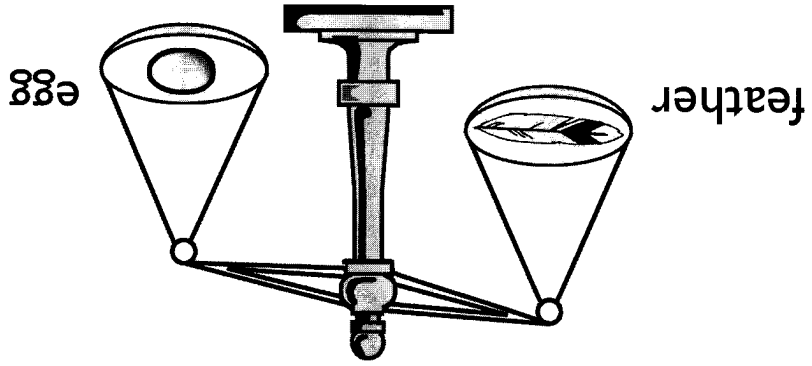
(c)

The apple is as heavy as 4 marbles. True/False



(b)

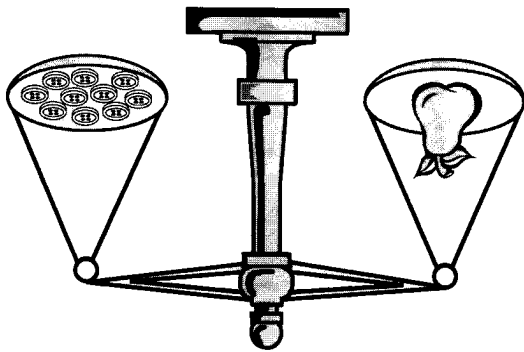
The feather is as heavy as the egg. True/False



(a)

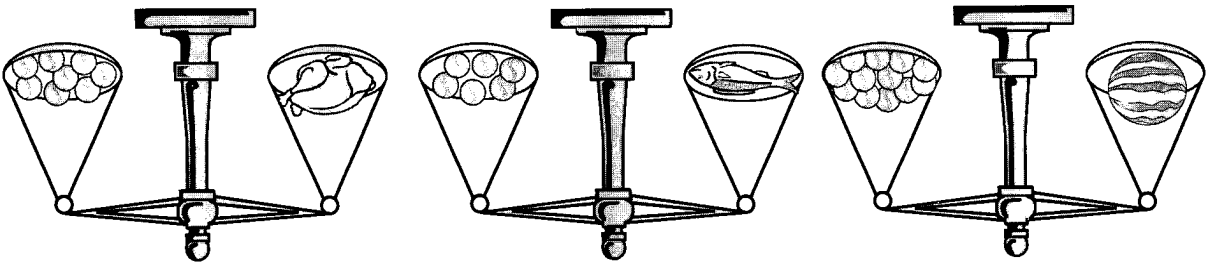
8. Circle the correct answer.

The mass of the pear is _____ units.



(b) Let \otimes be 1 unit.

9. Take ○ as 1 unit.



(a) The mass of the fish is _____ units.

(b) The mass of the watermelon is _____ units.

(c) The mass of the chicken is _____ units.

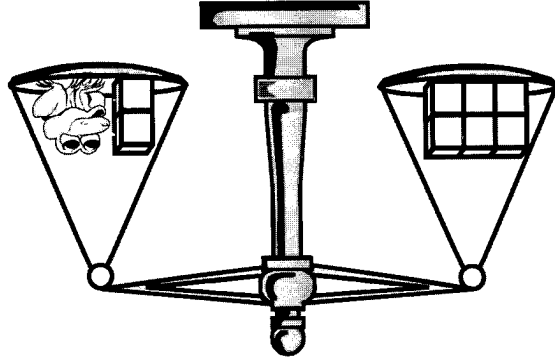
(d) The _____ is the heaviest.

(e) The _____ is the lightest.

(f) The chicken is lighter than the _____.

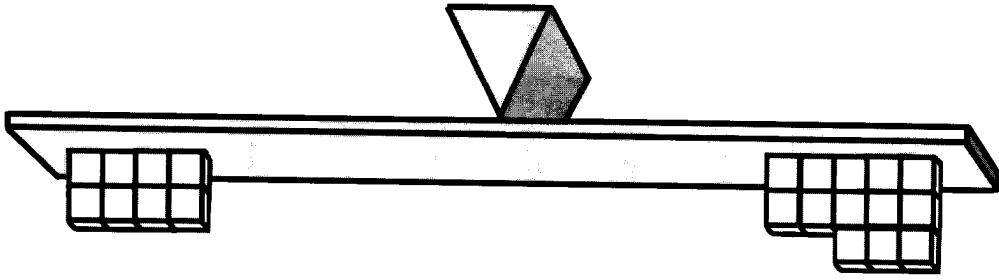
 Exercise three

10. Look at the picture carefully. Then fill in the blank.

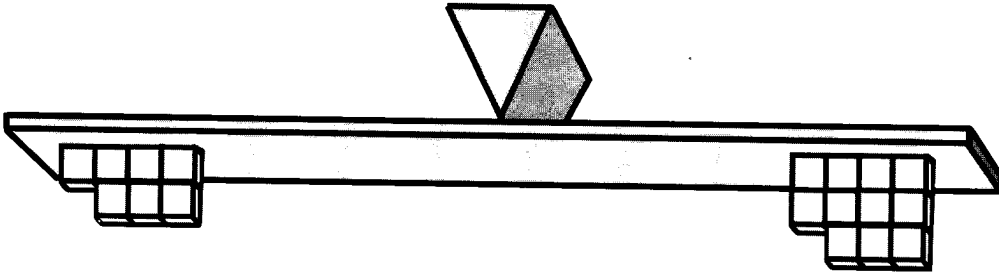


Let □ be 1 unit.

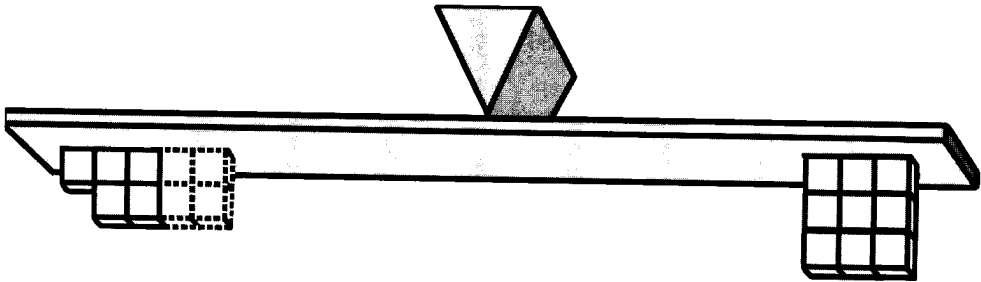
The mass of the frog is _____ units.



(b)



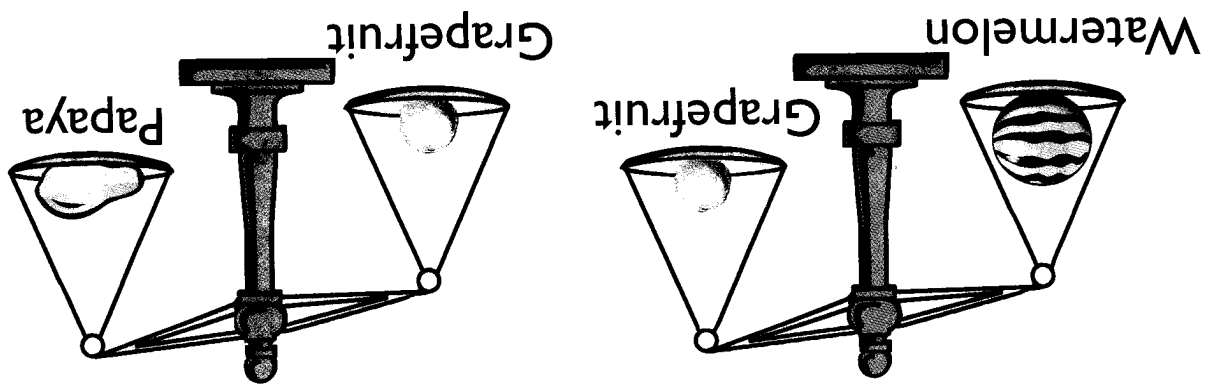
(a)



11. Draw the correct number of blocks on the right side to balance the see-saw. For example,

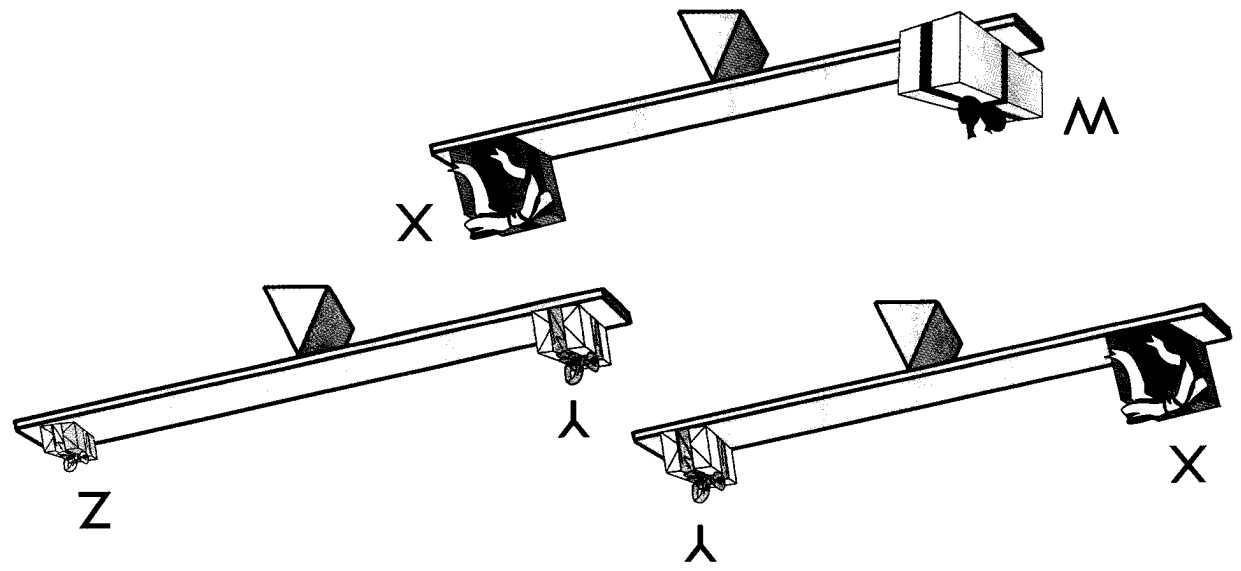
12. Put in order:

(a) these fruits from the heaviest to the lightest.



heaviest
lightest

(b) these presents from the lightest to the heaviest.



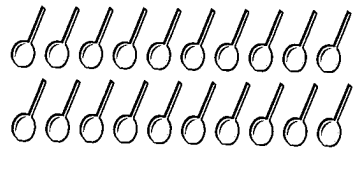
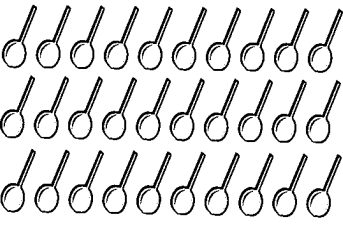
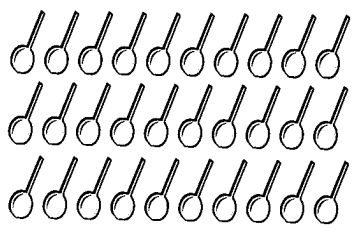



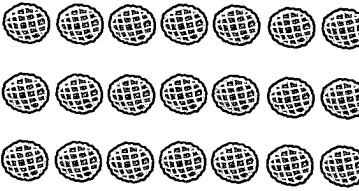
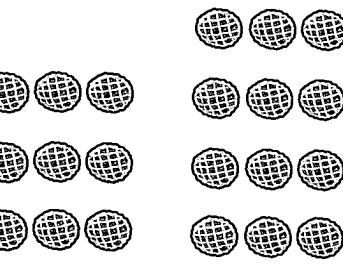
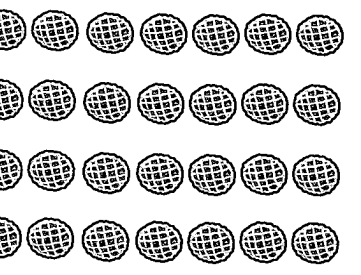
heaviest
lightest

Numbers To 100

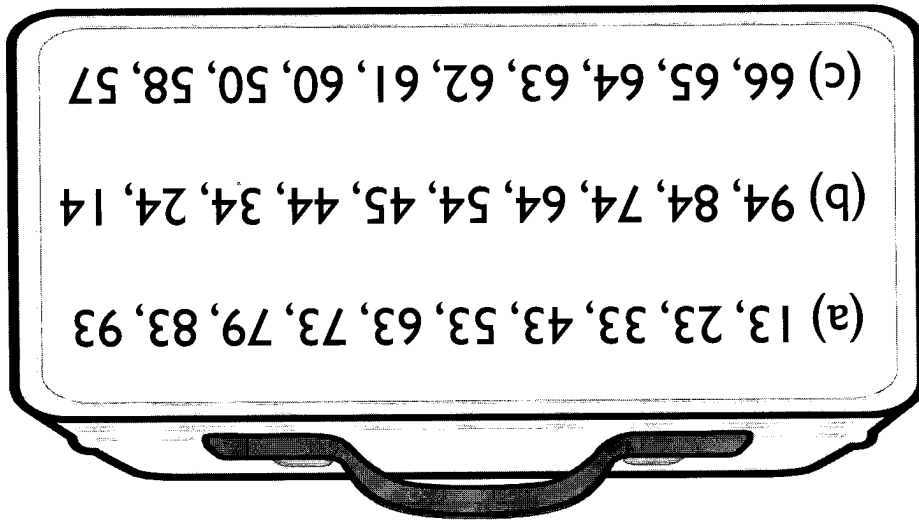
Exercise one



1. Ring to show the correct number of things. Then write in words.

<hr/> 	09 	
<hr/> 	75 	
<hr/> 	50 	

2. Cross out the odd numbers out with an 'X'.

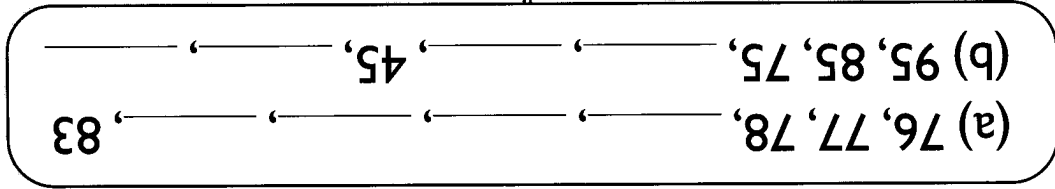


(a) 13, 23, 33, 43, 53, 63, 73, 79, 83, 93
(b) 94, 84, 74, 64, 54, 45, 44, 34, 24, 14
(c) 66, 65, 64, 63, 62, 61, 60, 50, 58, 57

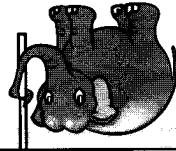
3. Fill in the correct numbers.

- (a) The number just after 89 is .
- (b) The number just before 58 is .
- (c) The number between 70 and 68 is .
- (d) The number that is 10 more than 46 is .
- (e) The number that is 10 less than 88 is .

4. Continue the number patterns.



(a) 76, 77, 78, _____, _____, _____, 83
(b) 95, 85, 75, _____, _____, _____, 45, _____



5. Fill in the boxes to show how many tens and ones.

		One hundred
		Eighty-nine
		Fifty-three
		Forty-one
5	6	Sixty-five
Ones	Tens	

6. Fill in the blanks with 'more than' or 'less than'.

(a) Forty-six is _____ sixty-four.

(b) 96 is _____ 69.

(c) Ninety-three is _____ ninety-nine.

(d) 77 is _____ 44.

(e) Twenty-eight is _____ fifty-eight.

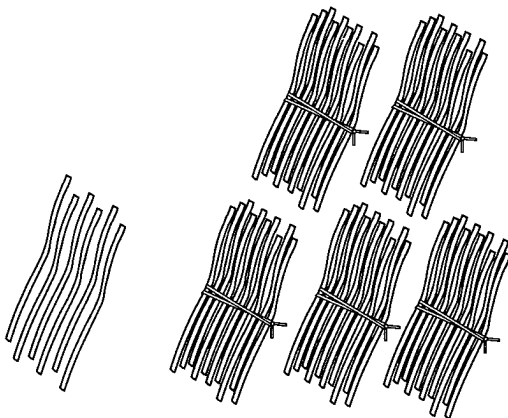
(b) $\square + 7 = 72$
 (d) $\square - 6 = 82$
 (f) $\square - 5 = 71$
 (h) $\square = 83 + 4$

(a) $\square + 4 = 70$
 (c) $\square - 4 = 64$
 (e) $\square - 2 = 80$
 (g) $\square = 88 + 2$

8. Fill in the missing numbers.

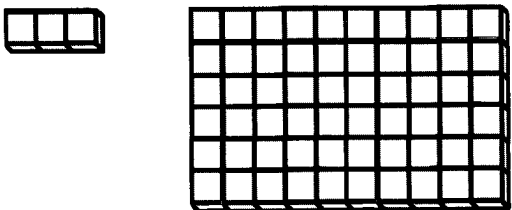
Exercise two 

\square tens \square ones



has more items.

\square tens \square ones



7. Write how many tens and ones. Then ring the set that

$\square = 81 - \square$ $\square \xleftarrow{-8} \square \xleftarrow{-10} 63$	(p)
$\square = 61 + \square$ $\square \xleftarrow{+9} \square \xleftarrow{+10} 55$	(c)
$\square = 75 - 27 =$ $\square \xleftarrow{-7} \square \xleftarrow{-20} 75$	(b)
$\square = 47 + 16 =$ $\square \xleftarrow{+6} \square \xleftarrow{+10} 47$	(a)

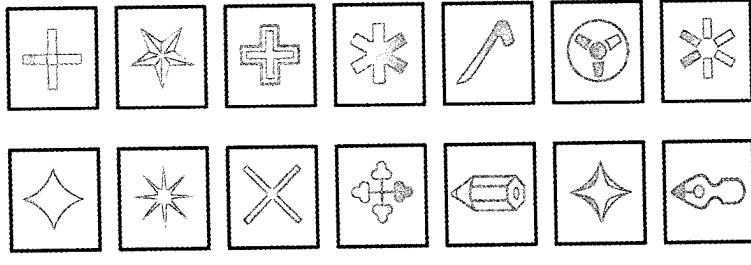
9. Fill in the boxes with the correct numbers.



Andy



John

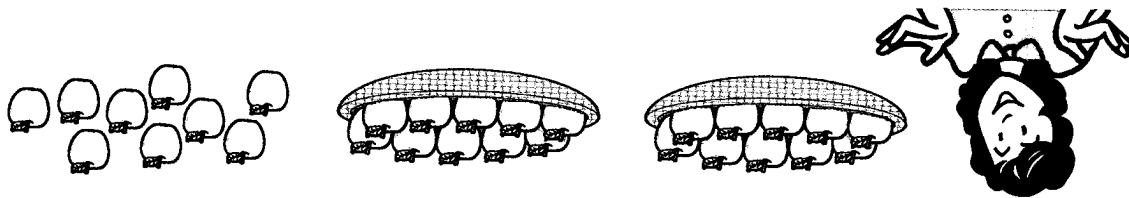


has.

10. John and Andy have 20 stickers altogether. John has 14 stickers. Draw the correct number of sticker Andy

$\square = \square - 16$	
$\square \xleftarrow{-2} \square \xleftarrow{-30} 91$	(f)
$\square = \square + 78$	
$\square \xleftarrow{+2} \square \xleftarrow{+20} 78$	(e)

11. Joyce buys 7 apples. Maria buys 6 apples more than Joyce. Color the number of apples Maria bought. Then fill in the blank.

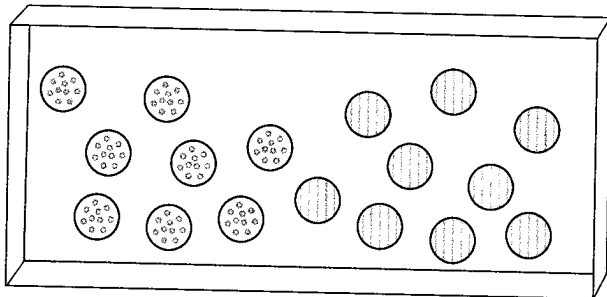


Maria buys _____ apples.

 Exercise three

12. Do these problems.

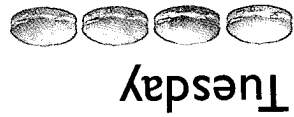
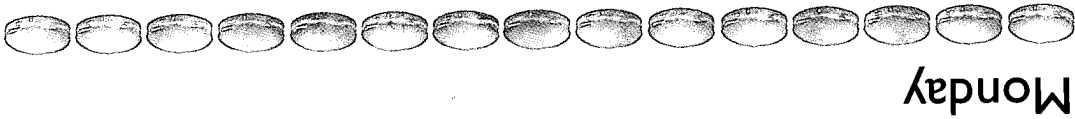
(a) There are 17 balls in a box. 9 of them are striped. The rest are spotted. How many spotted balls are there?



$$\square = \square \bigcirc \square$$

There are _____ spotted balls.

(b) Mr. Smith sold 15 chicken burgers on Monday. He sold another 4 on Tuesday. How many chicken burgers did he sell altogether?

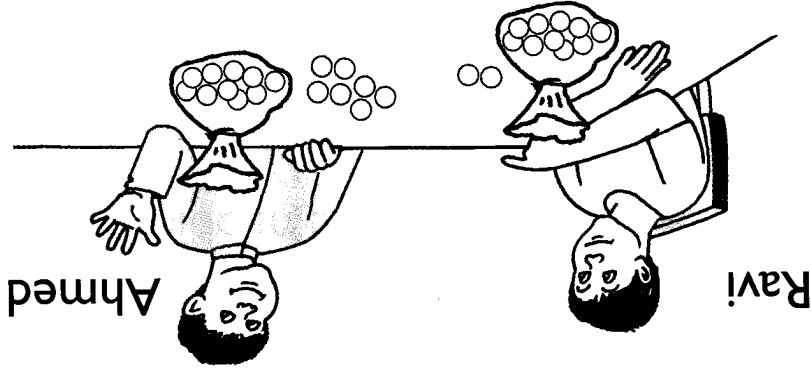


$$\square = \square + \square$$

He sold _____ chicken burgers altogether:

(c) Ravi has 12 marbles. Ahmed has 5 marbles more than Ravi. How many marbles does Ahmed have?

$$\square = \square + \square$$



Ahmed has _____ marbles.

the treasure.

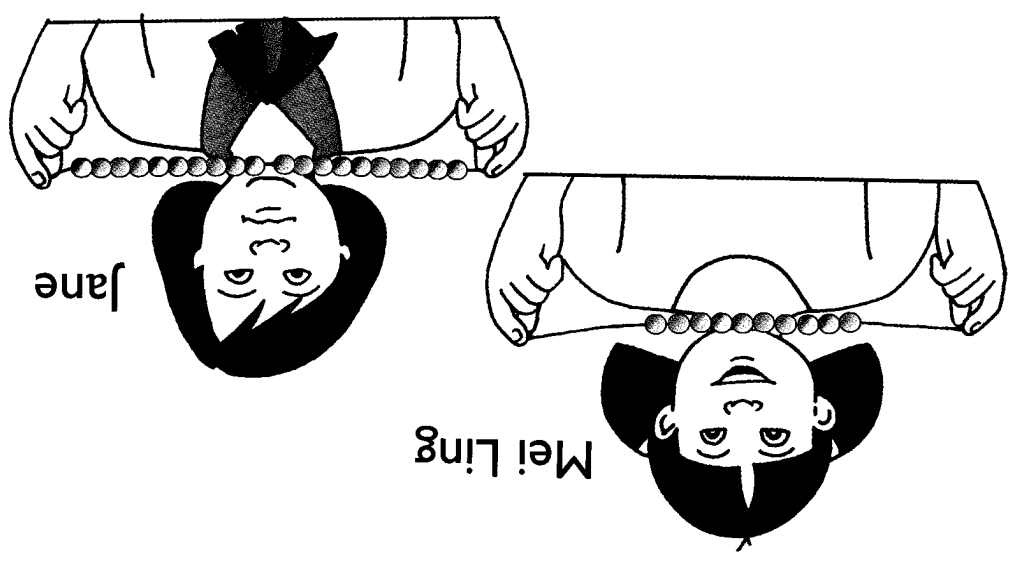
There are 20 boxes to choose from. Each box has a different number. You can open only one box to find

A treasure is hidden in a box.

Activity

Jane has _____ beads altogether.

$$\square = \square \bigcirc \square$$



(d) Mei Ling has 10 beads. Jane has 10 beads more than Mei Ling. How many beads does Jane have?

31	49	38	71	34	79
36					37
63					
40					
81					
16	19	39	98	74	57

- The number is more than 50.
- There is no '9' or '3' in the number.
- If you add 30 to the number, your answer will be less than 100.

Find the correct box using these clues!

Money

Exercise one



1. Is the amount of money enough to buy the item?
Write 'Yes' or 'No' in the boxes.

<input type="checkbox"/>		
<input type="checkbox"/>		

sandwich	cake	roll	apple

(a) Choose one of these items.

Which coins can you use to pay for it?

Use your paper coins and paste them in this box.

Item: _____

(b) Choose two items.



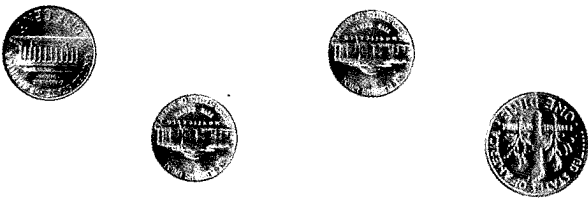


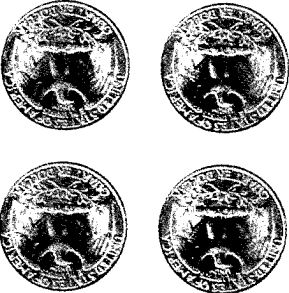


Which coins can you use to pay for them?

Paste the correct amount of paper coins in the box.



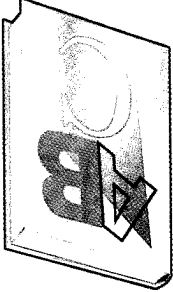

Items: _____

Together they would cost _____.

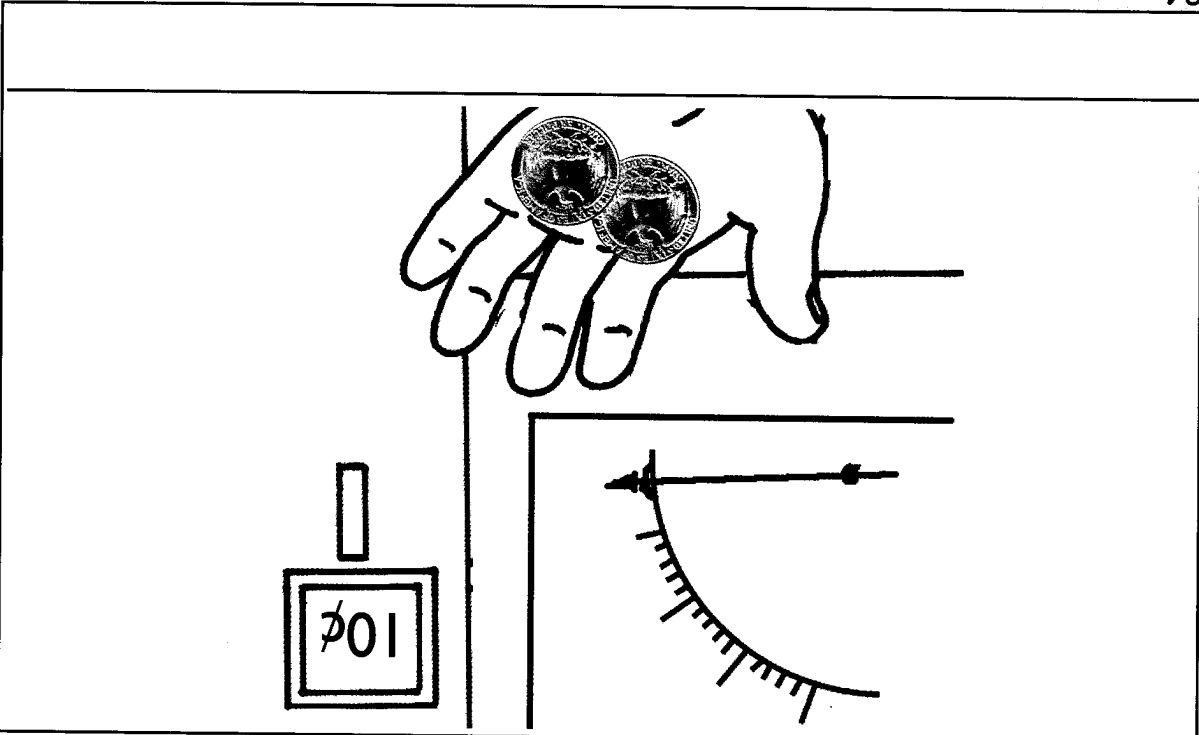
Handwritten notes:
100p
50p
20p
10p

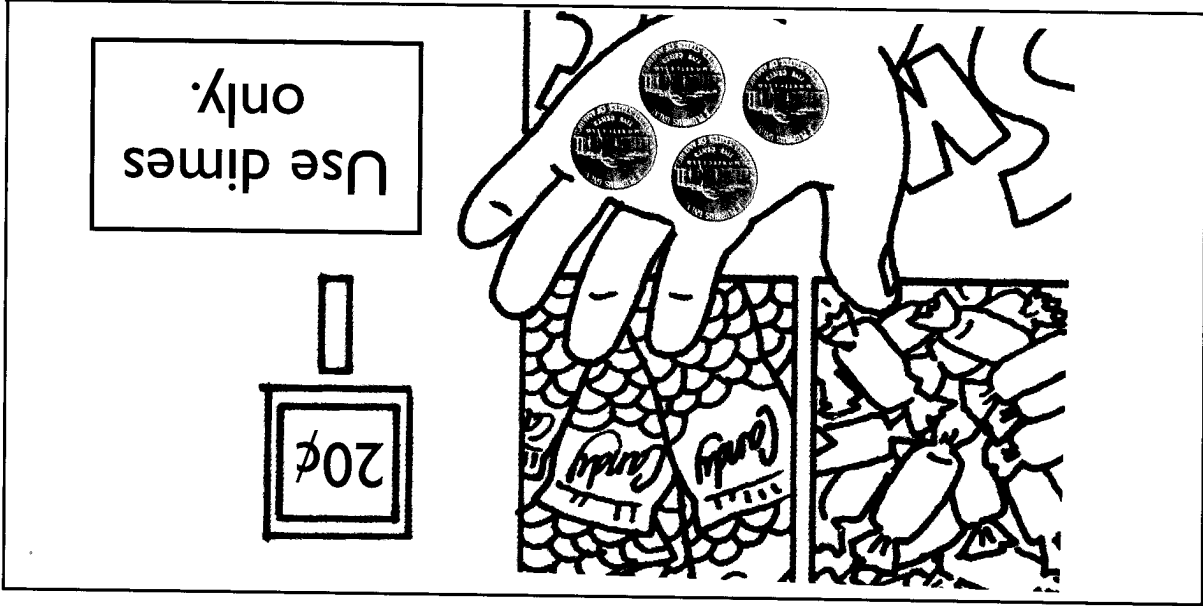
3. Ring the correct number of coins that will give the same amount of money on the left.

Devi needs:	Devi has:	Item
	25¢	
	50¢	
	\$6	
	\$9	

4. Devi wants to buy these items. Write how much more money he needs.


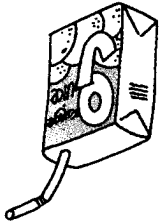



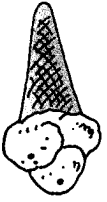




Change 4 nickels for 2 dimes.



5. Change the coins to get the correct ones.
For example:

6. How much change will you get back? Write the correct amount in the boxes.

Your change	You pay	You buy
		 55 cents
		 35 cents
		 70 cents
		 85 cents

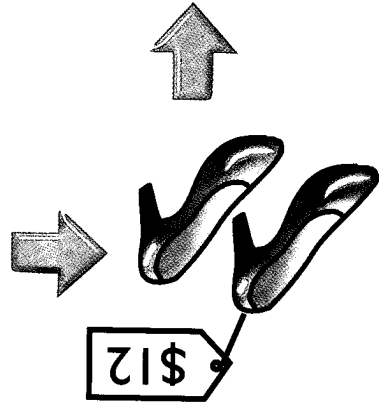
7. Mary went shopping with two \$10 notes. Ring the amount of money she has left after buying each item. Then fill in the blanks.

\$7

\$20

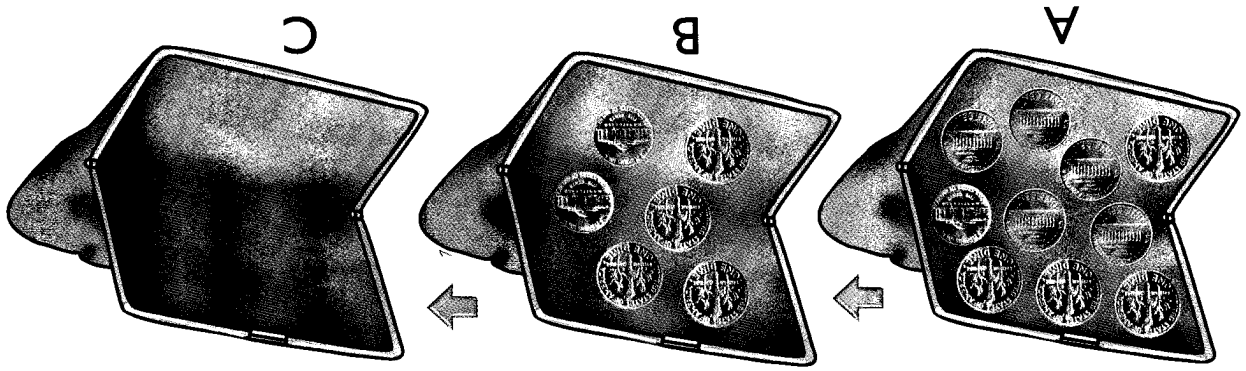
Mary has \$ ___ left.

Mary has \$ ___ left.

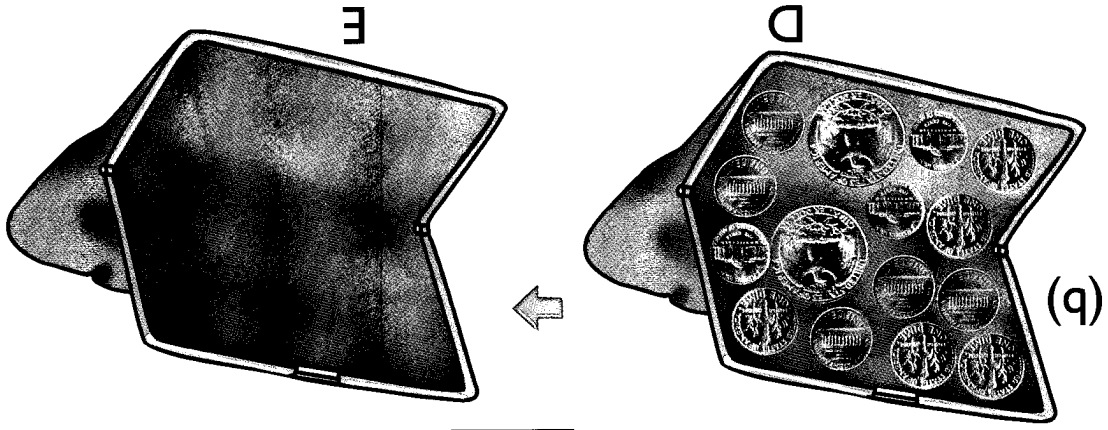


Exercise three 

8. (a) The 10 coins in Purse A have been changed to leave only 6 coins in Purse B. What coins in Purse A were changed? Ring them.

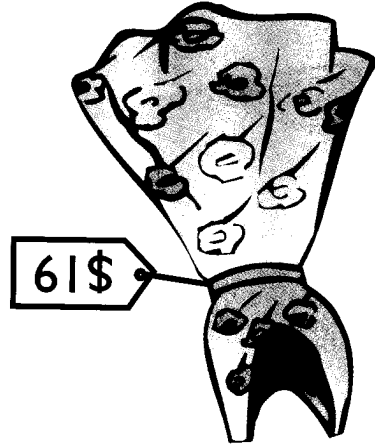


Change the coins in Purse B to make as few coins as possible in Purse C. What are the coins in Purse C?



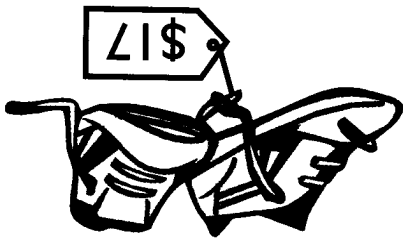
Change the coins in Purse D to make as few coins as possible in Purse E. What are the coins in Purse E?

She needs _____ more.



10. Jane has \$6. She wants to buy a dress for \$19. How much more money does she need?

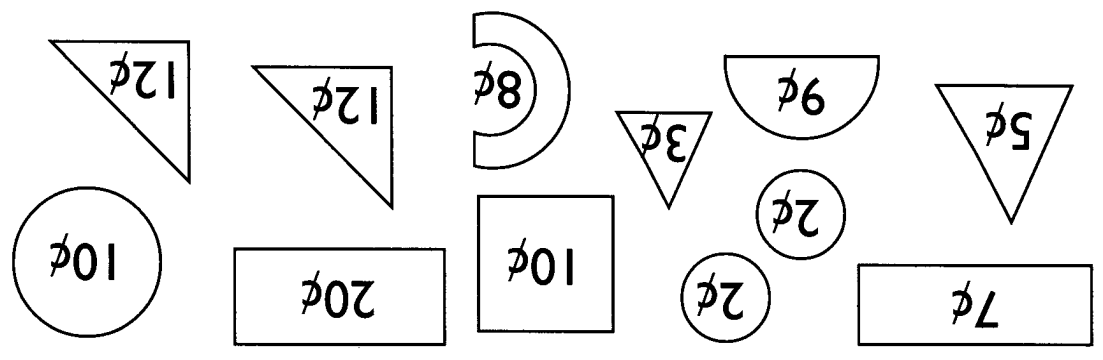
He had _____ left.



9. Mr. Jones had \$20. He bought a pair of shoes for \$17. How much money had he left?

Build a toy.

Use the shapes provided and draw your toy in the box below. You must buy the shapes you use. After you are done, find out how much your toy costs.



My toy

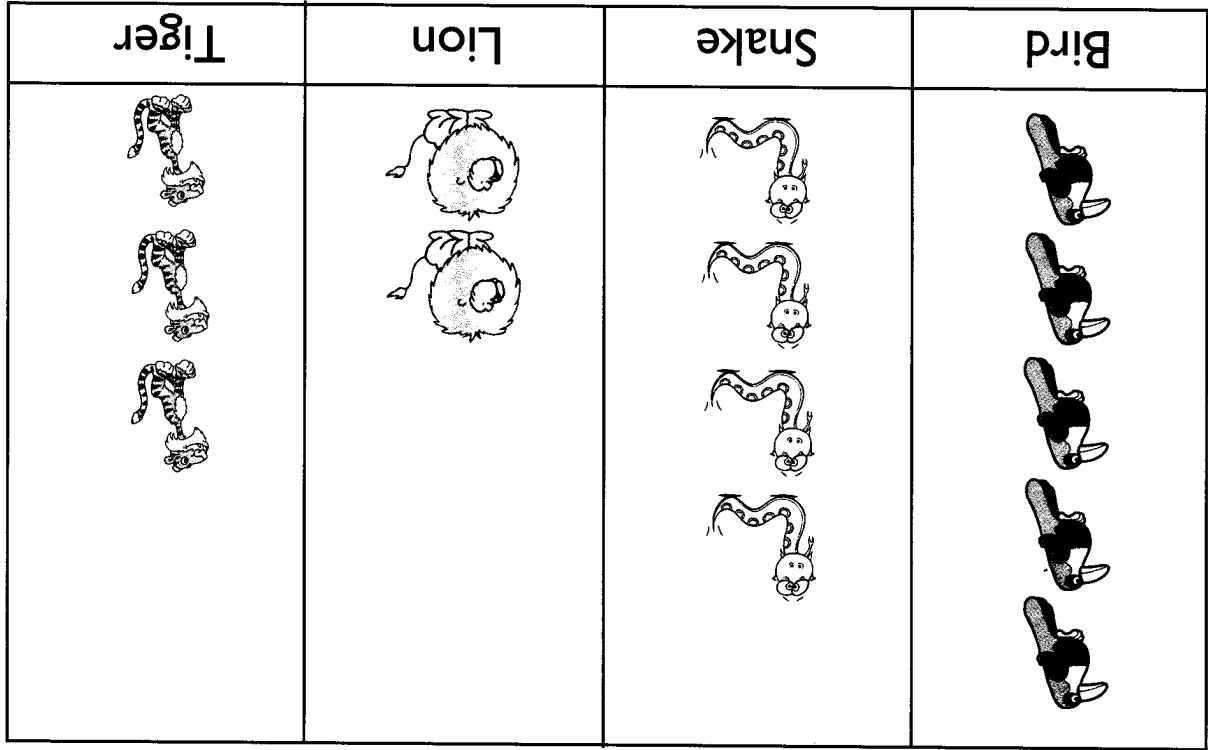
My toy costs _____.

Picture Graphs

★ Exercise One

1. The graph shows the number of animals Minghua saw at the zoo. Fill in the blanks.


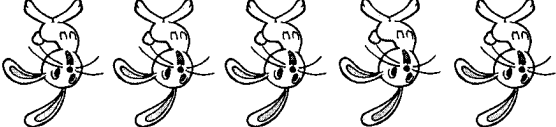


Animals At the Zoo



- (a) Minghua saw _____ birds, _____ snakes, _____ lions, and _____ tigers.
 (b) He saw _____ more birds than lions.
 (c) Minghua saw _____ fewer lions than snakes.

2 Look at this picture graph of the pets owned by some children. Then fill in the blanks.

Pets


Cat	
Rabbit	
Bird	
Fish	

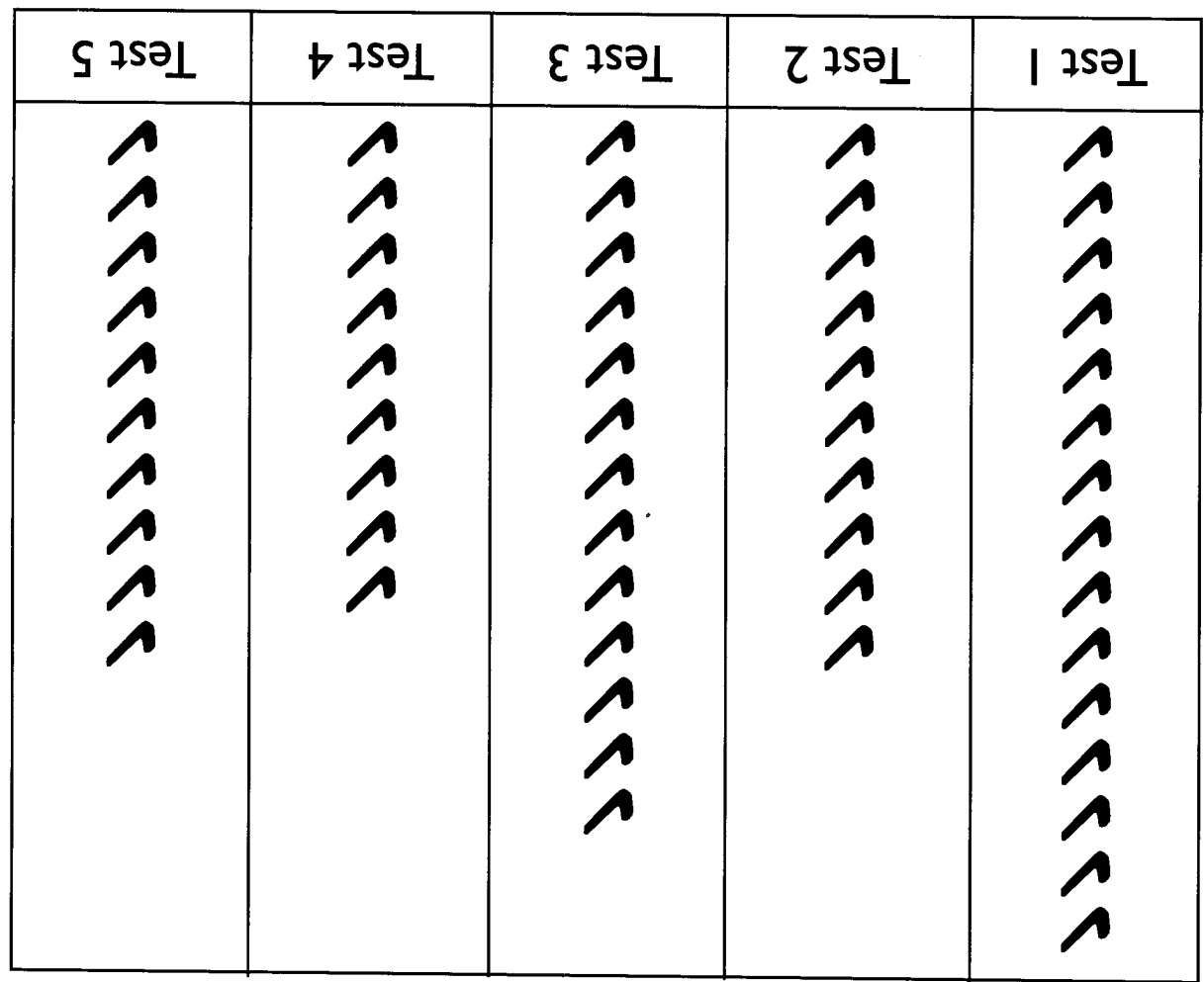
(a) There are _____ cats, _____ rabbits, _____ birds and _____ fish.

(b) There are _____ more birds than rabbits.

(c) There are _____ fewer cats than birds.

(d) There are _____ fewer rabbits than fish.

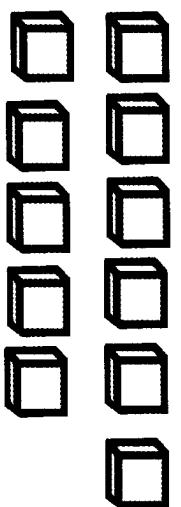
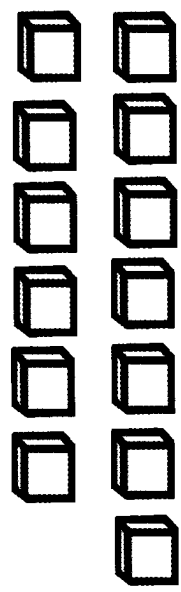
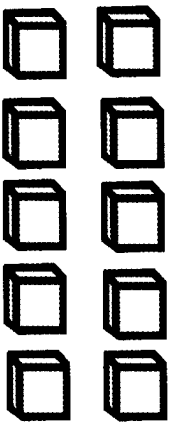
- Each  stands for 1 word John spelt correctly.
- (a) John spelt the most words correctly in Test _____.
 - (b) John spelt _____ more words correctly in Test 1 than Test 4.
 - (c) John spelt _____ fewer words correctly in Test 2 than Test 3.



3. The graph shows the number of words John spelt correctly in five spelling tests.

Exercise two 

4. The picture graph shows how tall 3 girls are. Fill in the blanks.

Mei Ling	Kate	Siti
		

(a) Mei Ling is _____ blocks tall.

(b) Siti is _____ blocks shorter than Kate.

(c) Kate is _____ (taller/shorter) than Mei Ling.

(d) Siti is the _____ (tallest/shortest).

(e) _____ is the tallest.


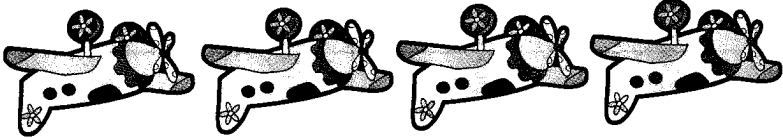

5. Joyce has 5 stars for a Maths test. Minghua has 7 stars for the test. Kelvin gets 8 stars while Fatimah gets 10 stars. Draw the stars in this picture graph. Then fill in the blanks.

Joyce	
Minghua	
Kelvin	
Fatimah	

- (a) _____ has more stars than Kelvin.
- (b) Minghua and Joyce have _____ stars altogether.
- (c) Fatimah gets 5 stars more than _____.
- (d) _____ has fewer stars than Minghua.

6. Andy made a picture graph of the toys he has. Fill in the blanks with the correct answers.

My Toys

Lorry	
Aeroplane	
Car	

(a) Andy has _____ toys altogether:




(b) He has _____ more cars than aeroplanes.

(c) There are _____ fewer aeroplanes than lorries.

(d) Andy has _____ aeroplanes and cars

altogether:

7. The picture graph shows the number of students in a class who ate during lunch break. Answer the questions.

Sandwiches	
Hamburgers	
Fruits	
Donuts	

Let  be one student who ate during lunch break.

(a) How many students ate sandwiches and fruits altogether?

(b) How many more students ate sandwiches than donuts?

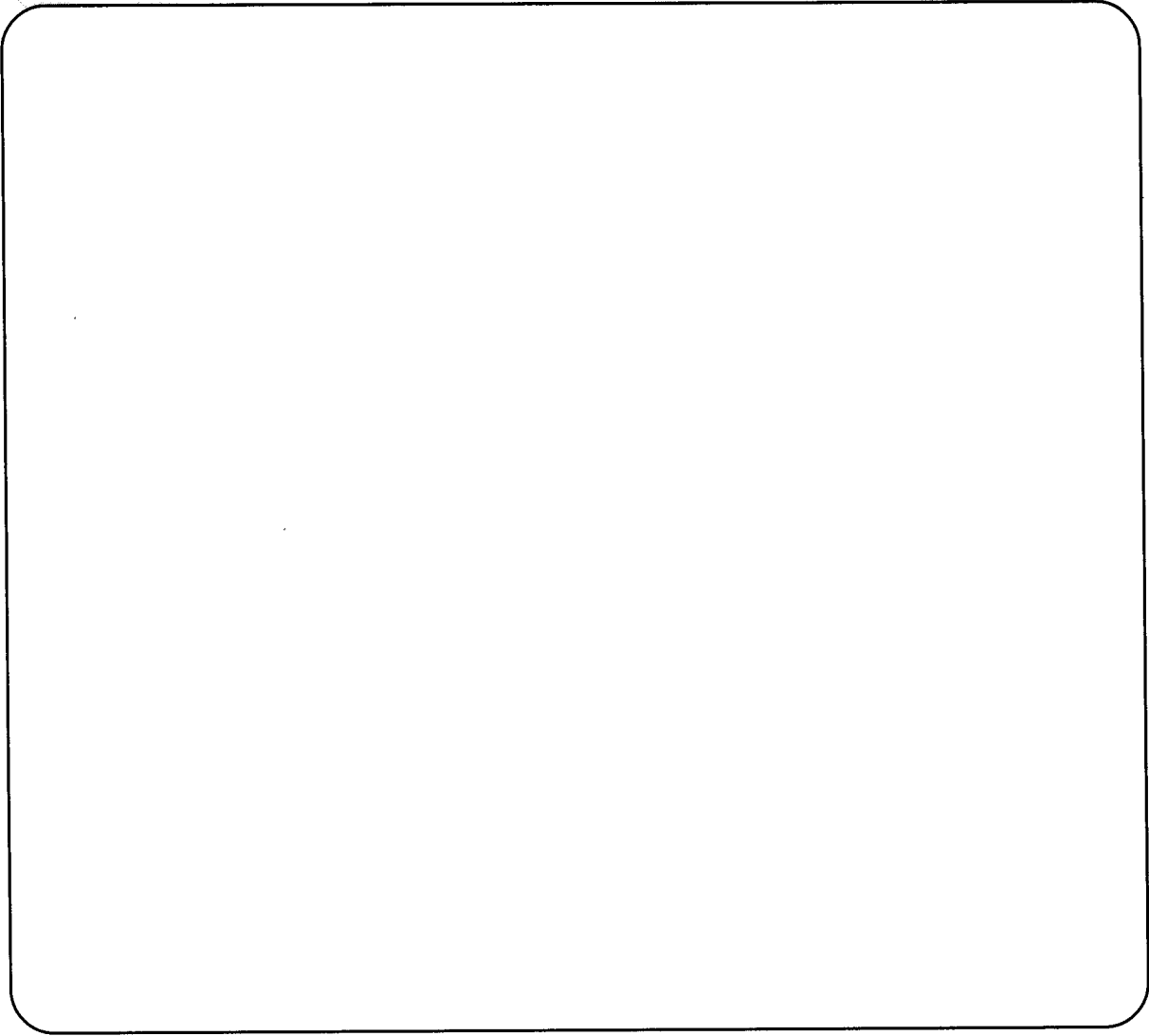
(c) Which types of food were eaten by the same number of students?

(d) How many more students ate sandwiches than fruits?

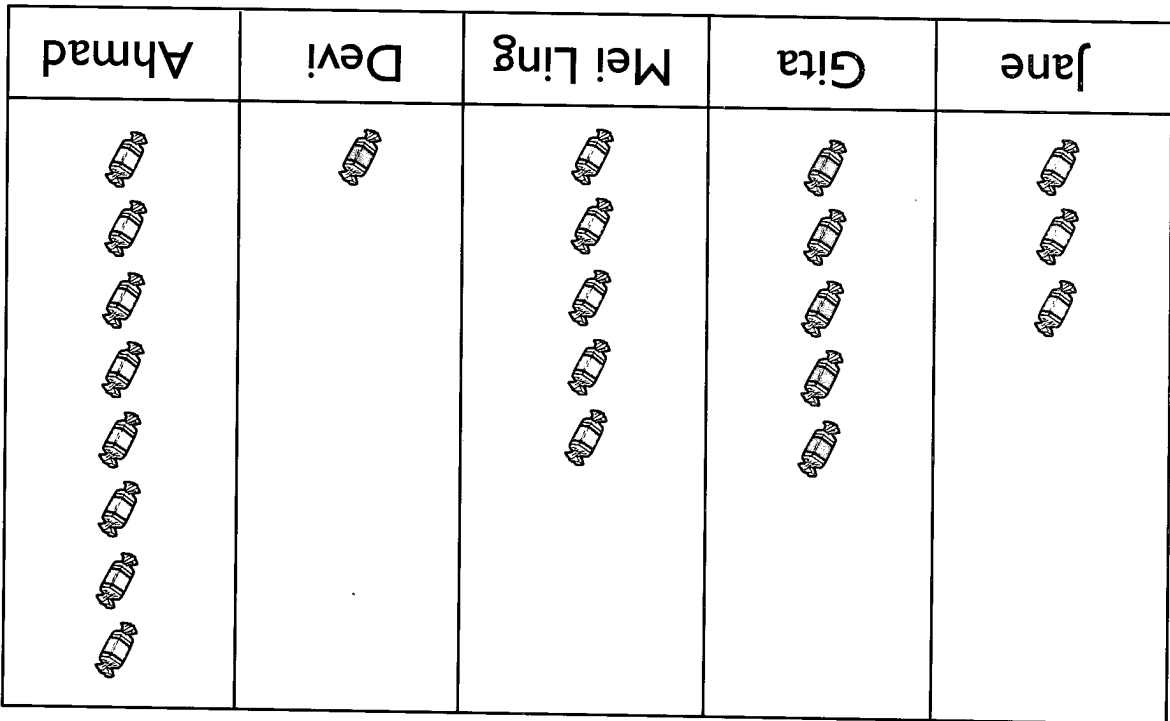
 Exercise three

8. Caps are sold at a school fun-fair. Draw a picture graph to show that 6 red caps, 12 blue caps, 8 brown caps, 7 yellow caps, 4 white caps and 3 black caps are sold.

Caps sold at the fun-fair



9. This picture graph shows the number of sweets that Jane, Gita, Mei Ling, Devi and Ahmad ate in one week. Fill in the blanks.



(a) _____ ate the least sweets.

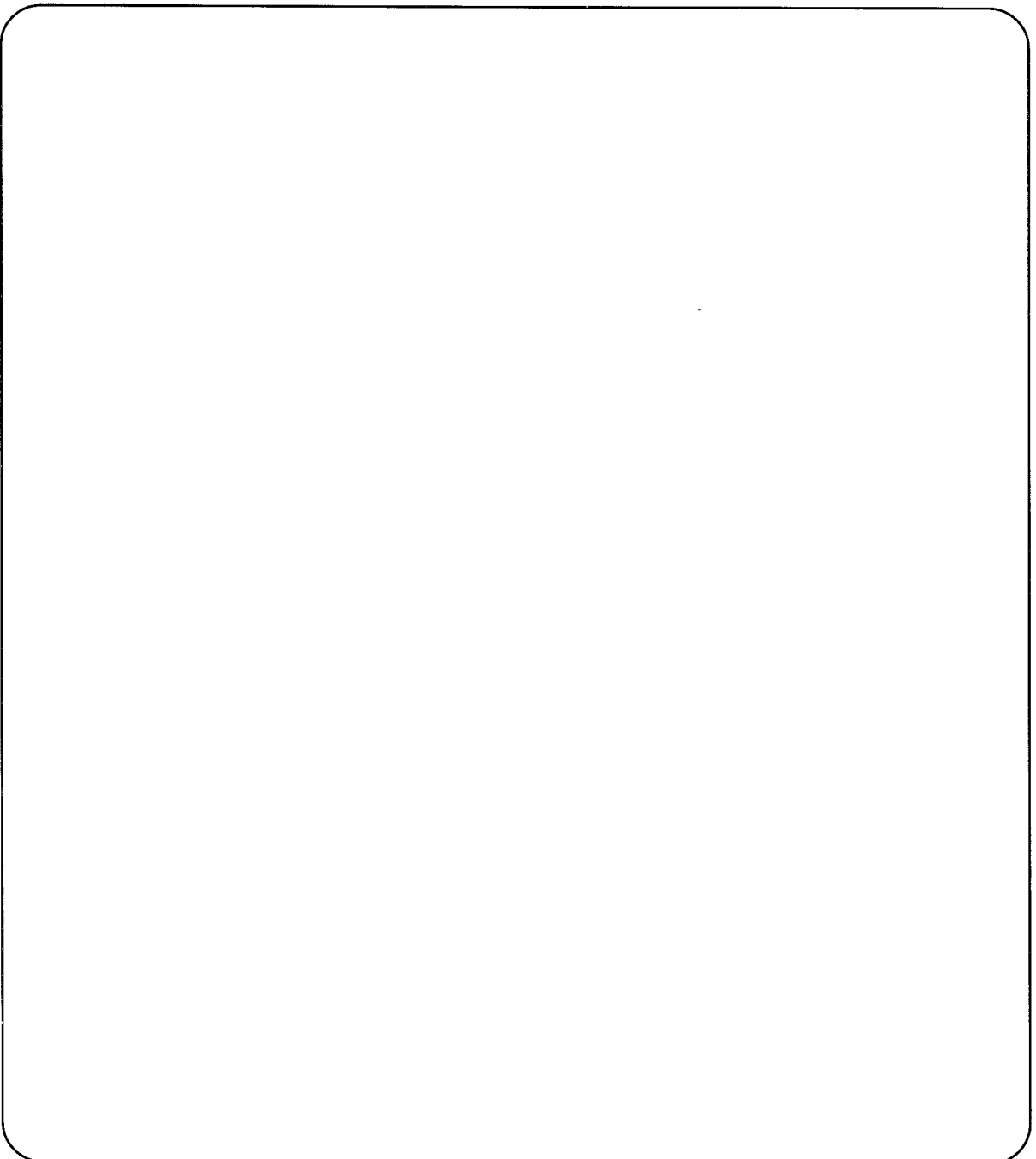
(b) _____ ate the most sweets.

(c) _____ and _____ ate the same number of sweets.

(d) Ahmad ate _____ more sweets than Jane.

(e) Mei Ling ate 3 fewer sweets than _____.

(f) Jane ate 2 more sweets than _____.



Make a picture graph to show the months of the birthdays of any 15 classmates.


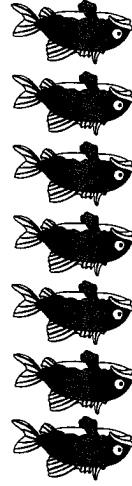




Let's Revise!

Exercise One



1. The picture graph below shows the number of animals Mei Ling saw at the Science Garden.

Tortoise	Fish	Water snail	Frog
			

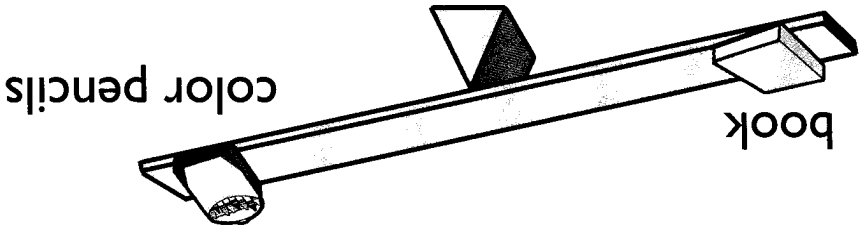
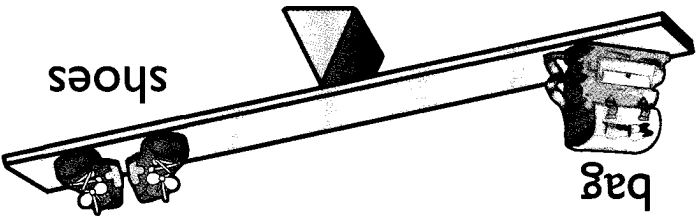
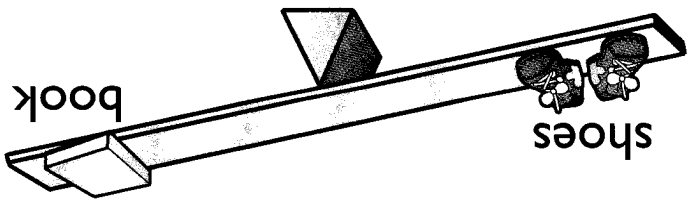
Animals At the Science Garden

(a) Mei Ling saw _____ frogs, _____ water snails, _____ fish and _____ tortoises.

(b) She saw _____ frogs and fish altogether:

(c) She saw _____ water snails and tortoises altogether:

2 Look at the picture. Then answer the questions.



(a) Which item is the heaviest?

(b) Which item is the lightest?

(c) What is lighter than the shoes but heavier than

the color pencils?

(d) What is heavier than the shoes?

(e) What is lighter than the bag but heavier than the

book?

The image is a worksheet for a money matching activity, divided into three horizontal panels. Each panel contains a target item with a price tag and a set of currency (bills and coins) to be used to reach that price.

- Panel 1:** Target: A box of tissues for \$2. Currency: One \$1 bill and six quarters.
- Panel 2:** Target: A dictionary for \$37. Currency: Three \$10 bills, three \$5 bills, and twelve quarters.
- Panel 3:** Target: A coat for \$12. Currency: Three \$5 bills and six quarters.

3. Ring the notes and coins to make up the exact amount of money Sharon needs to buy each item.

4. Write the tens and ones. Then ring the set that has fewer items.

<p>_____ tens _____ ones</p>	<p>_____ tens _____ ones</p>
------------------------------	------------------------------

<p>_____ tens _____ ones</p>	<p>_____ tens _____ ones</p>
------------------------------	------------------------------

<p>_____ tens _____ ones</p>	<p>_____ tens _____ ones</p>
------------------------------	------------------------------

<p>_____ tens _____ ones</p>	<p>_____ tens _____ ones</p>
------------------------------	------------------------------

5. Do these.

(a) An oak tree is 10 sticks tall.

How many sticks tall is a tree

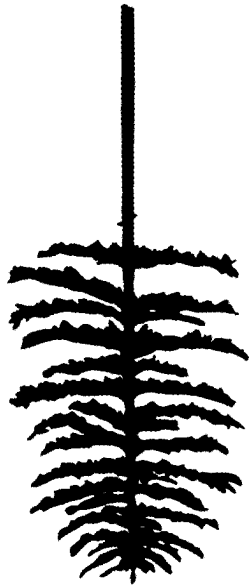
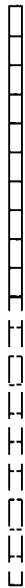
which is 10 sticks taller than the

oak tree?

Oak tree

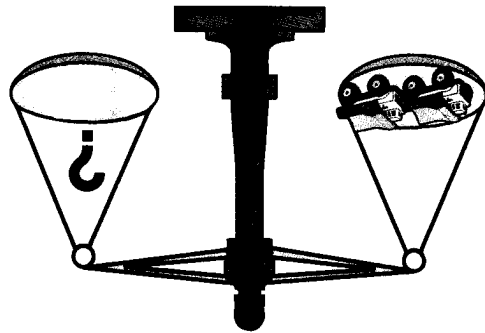


$$\square = \square \circ \square$$



The tree is _____ sticks tall.

(b) A toy truck is as heavy as 8 marbles. How heavy are 2 such toy trucks?

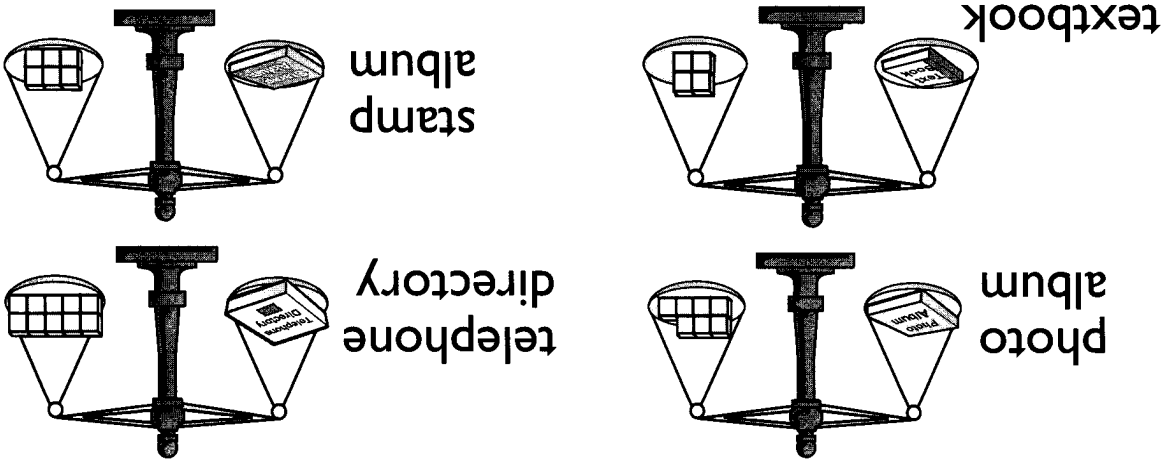


$$\square = \square \circ \square$$

2 toy trucks are as heavy as _____ marbles.

Exercise two

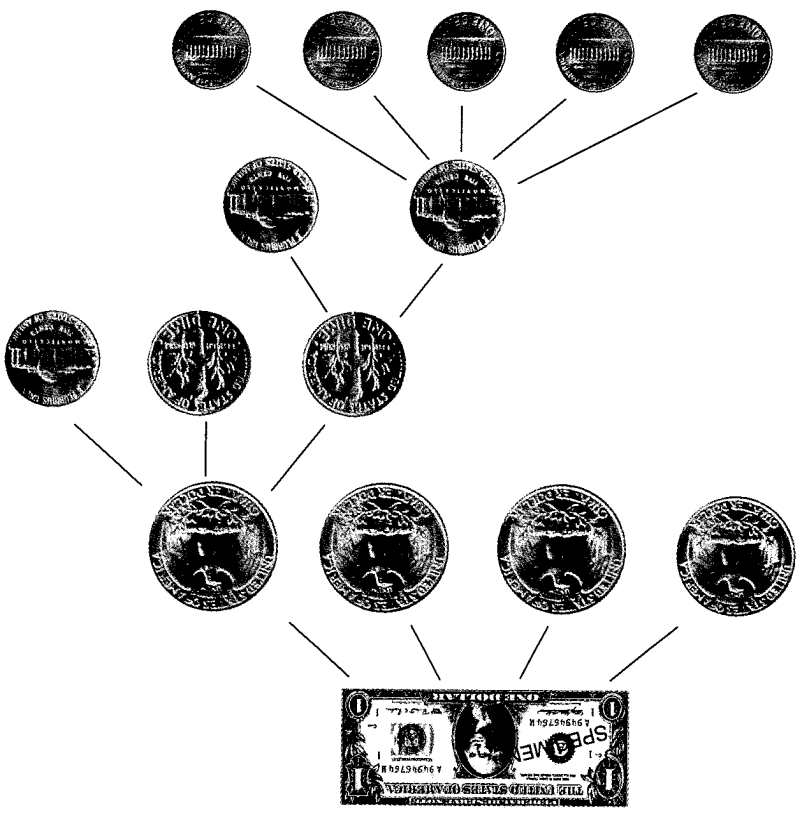
6. Look at the picture. Then answer the questions.



Let □ be one unit.

- (a) The mass of the photo album is _____ units.
- (b) The mass of the telephone directory is _____ units.
- (c) The mass of the textbook is _____ units.
- (d) The mass of the stamp album is _____ units.
- (e) The _____ is the lightest.
- (f) The _____ is the heaviest.

- (a) One 1-dollar note can be changed for _____ dimes.
- (b) One 1-dollar note can be changed for _____ nickels.
- (c) Ten nickels can be changed for _____ quarters.
- (d) Twelve quarters can be changed for _____ 1-dollar notes.



7. Look at the chart.

8. Below is a table showing the number of shirts a group of men own. Complete the picture graph. Then answer the questions.

Number of shirts	Mr. Lee	Mr. Smith	Mr. Jones	Mr. Wong
	6	3	5	5

Use  to stand for one shirt.

(a) Which men have the same number of shirts?

(b) Who has the most shirts?

(c) Which 2 men have 9 shirts altogether?

- (a) _____ is ten more than thirty-one.
- (b) Seven less than forty-six is _____.
- (c) The number _____ is between fifty-one and fifty-three.
- (d) _____ is six less than forty-three.
- (e) Eight more than fifteen is _____.
- (f) Nine less than forty-eight is _____.

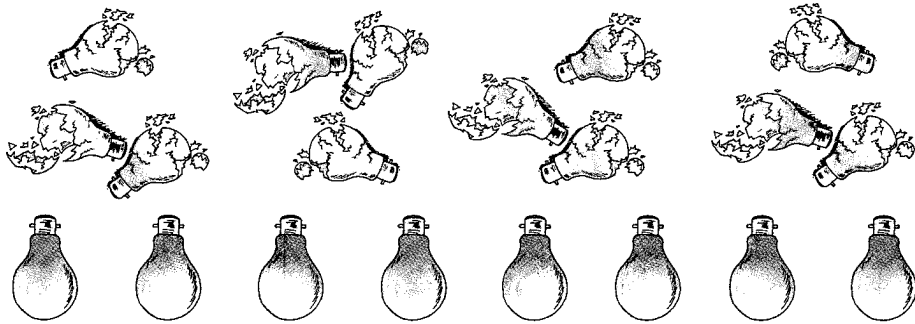
								20	19	11
				26	25	24		30		
		37	38			33	32	31	39	31
		47	48	46			42	41		
		57		56	55			51		

9. Complete the number board. Then fill in the blanks with words. Use the number board to help you.



10. Do these.

(a) Pete has 20 light bulbs. 12 were broken and thrown away. How many bulbs has he left?



$$\square = \square \bigcirc \square$$

Pete has _____ bulbs left.

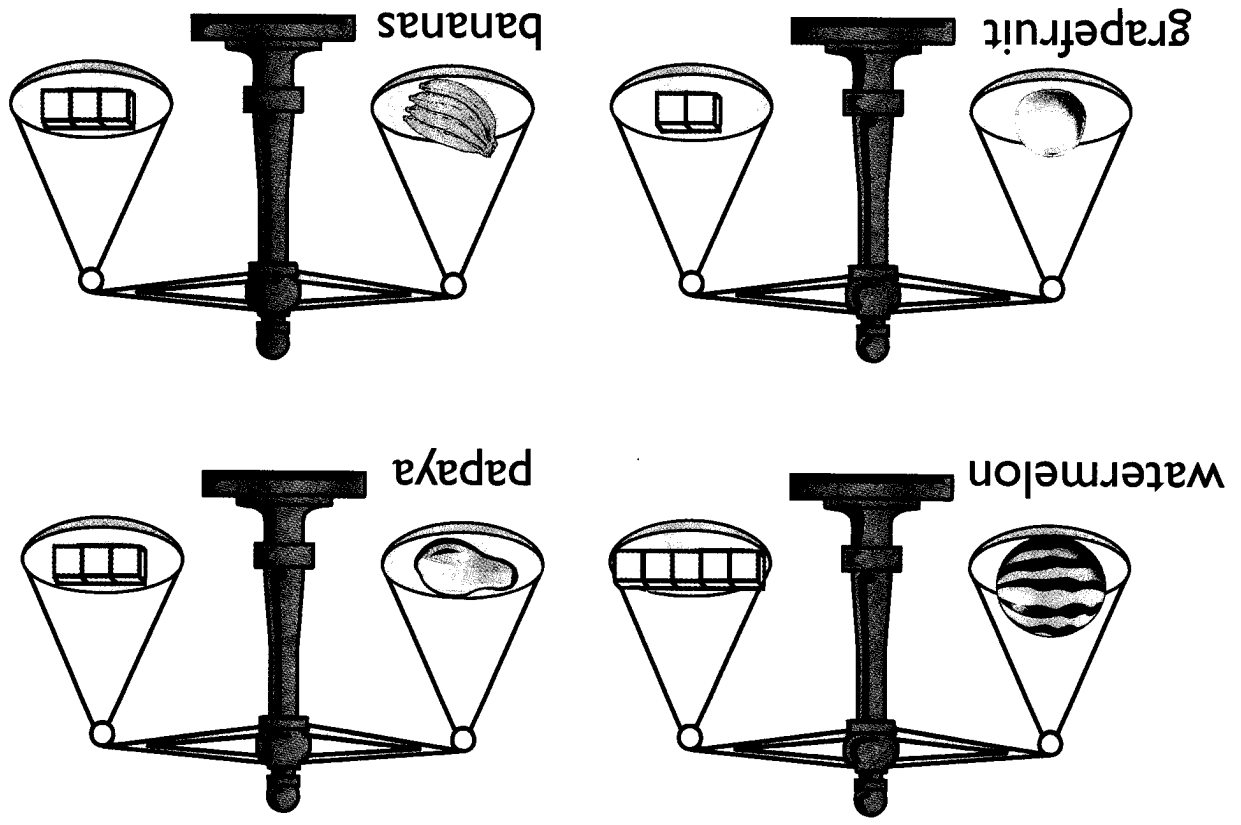
(b) An egg seller sells 5 eggs to Jane, 6 eggs to Maria and 9 eggs to Fatimah. How many eggs does the egg seller sell altogether?



$$\square = \square \bigcirc \square \bigcirc \square$$

The egg seller sells _____ eggs altogether.

11. The picture below shows the mass of different fruits.



Each \square is 1 unit.

(a) The mass of the _____ and the _____ is 6 units altogether.

(b) The mass of the watermelon and the grapefruit is _____ units altogether.

(c) The _____ is the lightest.

12. The picture graph below shows the number of different kinds of books on a book shelf in a library.

Science book	◆ ◆ ◆ ◆ ◆
storybook	◆ ◆ ◆ ◆
History book	◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆
Mathematics book	◆ ◆ ◆ ◆

Each ◆ represents 1 book.

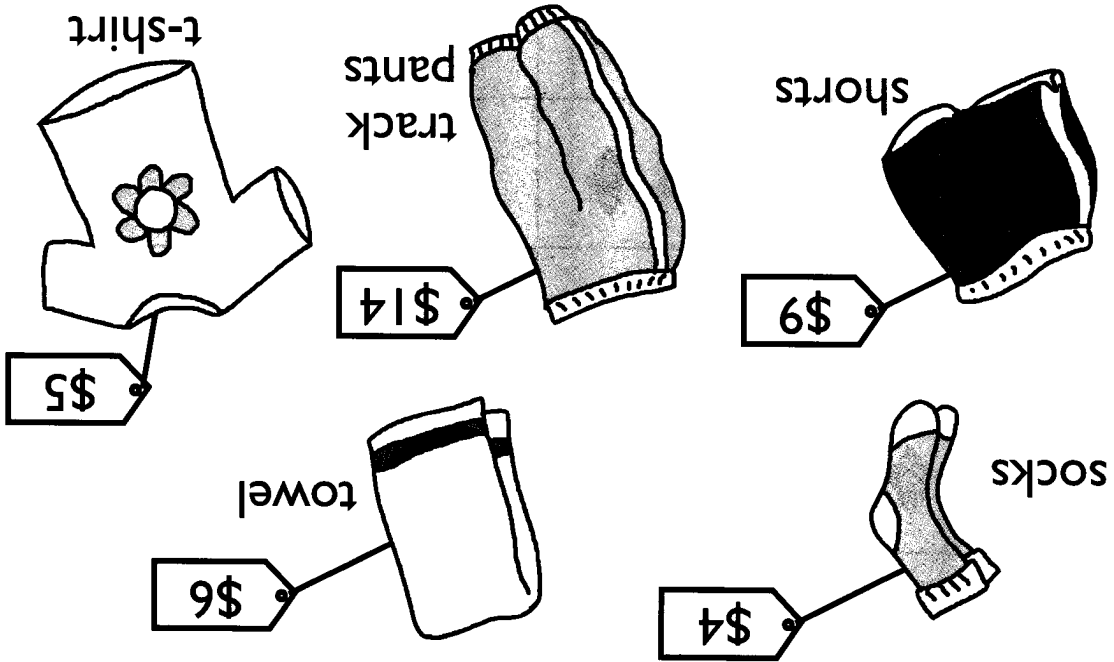
(a) Altogether there are _____ Science books and _____ storybooks on the book shelf.

(b) There are the same number of _____ and _____ books.

(c) There is 1 more History book than _____ books.

(d) There are 2 fewer Mathematics books than _____ books.

13. 2 girls go shopping at a sports shop.



(a) Jane has \$20. She buys a pair of shorts. How much change does she get?

$$\square = \square \bigcirc \square$$

She gets _____.

(b) Devi wants to buy a pair of socks, a pair of shorts and a towel. How much money does she need?

$$\square = \square \bigcirc \square \bigcirc \square$$

She needs _____.