EQUATIONS

PRE-READING

Look at the pictures and read the title of the lesson.

1. Circle your answers about pictures 1 through 5. Write them on the lines.

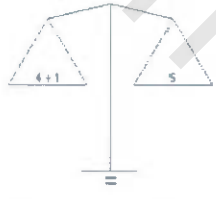
a) Picture 1 shows a very _____ math teacher. (angry / happy)
b) In picture 2, plant 'B' is taller than plant 'A'. Plant 'A' is _____. (higher / shorter)
c) The student in picture 3 is solving his _____. (math assignment / English homework)
d) Picture 4 shows an example of a mathematical _____. (inequality / equation)
e) The shape in picture 5 has four _____ squares. (equal / unequal)

Picture 1

Picture 2

Picture 3

Picture 4



Picture 5

2 Read these statements about pictures 6—8 below. Tick (✓) Yes or No.

	STATEMENTS	YES	NO
a)	In picture 6, there are four white triangles inside the big blue one.		
b)	In the same picture, three of the white triangles are smaller but equal.		
c)	In picture 7, students are writing with whiteboard markers.		
d)	The word "Mathematics" in picture 8 is written in black with a yellow background.		
e)	'English' is one of the words you can see in picture 8.		

Picture 6

Picture 7

Picture 8

3 Match pictures (6 - 8) above with their descriptions below. Write the picture numbers on the lines.

_____ a) This picture shows students solving mathematical problems on the board.
_____ b) The names of four subjects are in this picture.
_____ c) This is a big triangle with small triangles inside it.

READING TEXT

Use the words in the box below to complete the text.
Make sure that you put the correct word in each space.
You may use each word once only.

word	how	added	both
unknown	then	gives	equations

EQUATIONS

Explanation

In this text we are going to look at one type of mathematical expression; _____.

So, what is an equation? What does the word 'equation' mean? Well, the _____ "**equation**" is related to the word "**equal**". An equation tells us that two expressions are equal.

Look at this equation. $3x + 4 = 24 - 2x$. It tells us that an _____ number multiplied by 3, then _____ to 4 is equal to 24 minus the same unknown number multiplied by 2

Process

So, _____ do we solve this type of equation? Well, equations like this one can be solved by applying the same mathematical operations to both sides of the equation. Follow these instructions;

First, subtract 4 from _____ sides. This gives us: $3x = 20 - 2x$.
Next, add 2x to both sides. This _____ us $5x = 20$.
Finally, divide both sides by 5. The solution is that $x = 4$.

After you have found the value of x, you must check it. How do you check that x is 4?

Well, in order to check your solution, you must go back to the first equation ($3x + 4 = 24 - 2x$). If x is 4, _____ the equation reads: 3 multiplied by 4, plus 4 is equal to 24 minus the product of 2 and 4.

This gives us: $12 + 4 = 24 - 8$.

16 is the answer for both sides, therefore $x = 4$.

Vocabulary & Understanding

1. Find more words and sentences in the Reading text for these categories. Write them in the table below.

Plural Nouns	Questions	Signal Words
Equations	*What is an equation?*	*First*

2. Unscramble these words from the Reading text.

   a) Write the letters in the boxes.

qluae						
rnumeb						
emsa						
pyet						
ekli						
ssedi (plural)						
omfr (preposition)						
iunms						

b) Write the letters in the shaded boxes here.

____ ____ ____ ____ ____ ____ ____ ____

c) Unscramble the secret word. Use it to complete the sentence below.

An _____ tells us that two expressions are equal.

Comprehension Check

1. Write the answers to the following questions about the Reading text.

a) How can equations like '3x + 4 = 24 – 2x' be solved?

_____

b) How many instructions are used to solve the equation?

_____

c) What is the last instruction?

_____

d) How do you check your solution?

_____

2. Write the questions to these answers from the Reading text. The important information is underlined.

a) _____?

We are going to look at one type of mathematical expression.

b) _____?

Yes, the two sides of an equation are equal.

c) _____?

We solve equations by applying the same methods to both sides.

d) _____?

No, we don't take a different amount from the left-hand side.

Language Focus

1. Read the following statements and choose the correct tense.

a) Today we **(look/are going to look)** at one type of mathematical expression.
b) We usually **(put/are going to put)** the milk in the fridge.
c) Tomorrow we **(go/are going)** out to Nufud.
d) I **(like/am liking)** this book.
e) These days I **(read/am reading)** a book about the Ancient History of Ha'il region.
f) Children in Ha'il **(don't want/are not wanting)** to go to bed early.

2. Complete these questions and statements with 'do', 'does' or put an 'X' if no verb is needed.

a) He usually _____ a lot of work (more than anyone else).
b) She enjoys _____ cooking.
c) What _____ the word equation mean?
d) Who _____ plays for Al-Ittihad?
e) How _____ we solve this equation?