



WESTMINSTER
INTERNATIONAL UNIVERSITY IN TASHKENT

An Accredited Institution of the University of Westminster (UK)

Entrance test

Mathematics

M60

June 2011

Time allowed: One hour ten minutes

Answer all questions.

It is advised that you work quickly and that you leave behind questions that are taking you too long to answer.

You should only bring in writing material (pens, pencils, erasers, rulers).

No calculators are allowed.

All your rough calculations have to be presented. Answers with no evidence of calculations will not score any marks.

Use the blank pages of the exam paper to do your rough work.

Nothing should be removed from the exam room.

The sum of n terms of the arithmetic progression $a, a+d, a+2d, a+3d\ldots$ is

$$S = \frac{n}{2}[2a + (n-1)d]$$

Question 1 Solve $\frac{x-5}{x-6} - \frac{x-6}{x-7} = \frac{x-1}{x-2} - \frac{x-2}{x-3}$

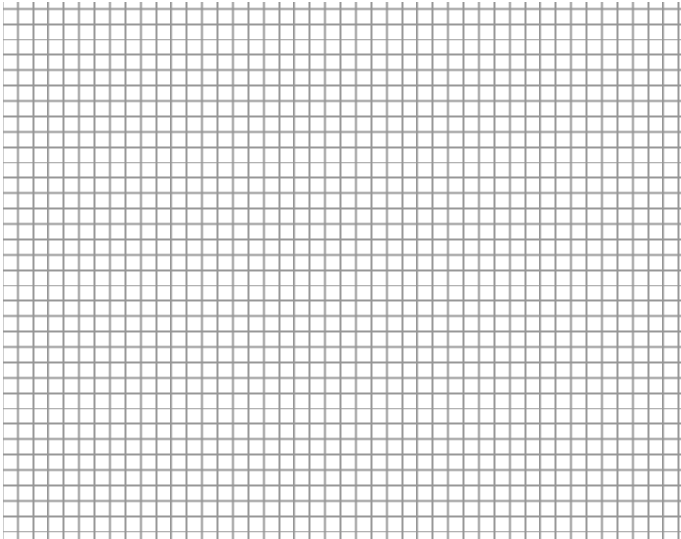
Answer: x= .

Question 2

The points in the table below form a straight line, but one of them is wrong.

- a) Draw the line formed by these points, clearly showing the wrong point and
 b) Find the equation of that line

X	-3	-2	0	1	2	3
Y	-1	$\frac{1}{2}$	$3\frac{1}{2}$	5	$5\frac{1}{2}$	8



Answer: Line equation is

Question 3

Find C=AB when $A = \frac{\sqrt{8} + \sqrt{50} - \sqrt{18} + \sqrt{48}}{\sqrt{2} + \sqrt{3}}$ and $(8^{\frac{2}{3}} + 4^{\frac{3}{2}}) \times 16^{-\frac{3}{4}}$

Answer: C= .

Question 4

I bought some eggs and they cost me 1000 cym per four eggs. I kept one-fifth of them and sold the rest at 1000 cym for three. If I made 1000 cym, how many eggs did I buy.

Answer: I bought eggs.

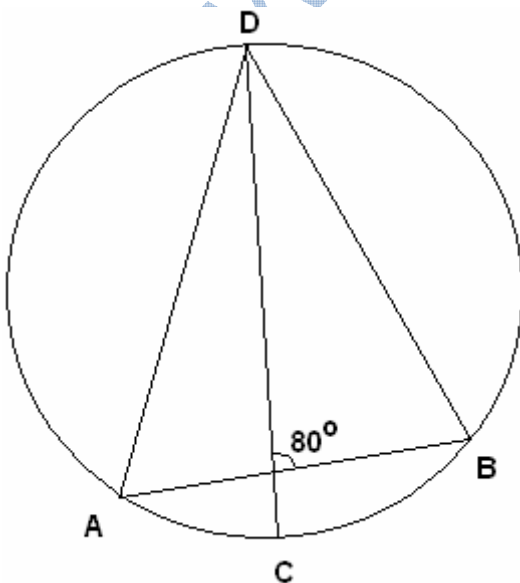
Question 5

How many members of arithmetic progression 42, 39, 36.... do we need to add up to 315

Answer: We need or term. .

Question 6.

In the figure below $\angle DAB = 4\angle ADC$ and $2\angle ABD = 3\angle BDC$. Find the angles of the triangle ADC.



Answer: $\angle DAC =$, $\angle ACD =$, $\angle CDA =$.