



# WESTMINSTER

International University in Tashkent

An Accredited Institution of  
the University of Westminster (UK)

## Westminster International University in Tashkent

### CPFS

### ENTRANCE EXAMINATION MATHEMATICS

**Date:** 12 August 2025

**Time allowed:** 1 hour 30 minutes

**ANSWER ALL QUESTIONS IN DETAIL, SHOWING ALL YOUR WORK ON THE SAME PAGE AS THE QUESTION. THE ANSWERS PROVIDED ON THE DRAFT PAGE OR ON THE SEPARATE SHEETS WILL NOT BE CONSIDERED.**

**NO BOOKS, NOTES OR ANY SORT OF ASSISTING MATERIAL ARE ALLOWED.**

<b>Surname</b>	
<b>Name</b>	
<b>Middle name</b>	
<b>Signature</b>	
<b>Do you have an IELTS or a CEFR certificate?</b>	<b>If YES, your score?</b>

### FOR OFFICE USE ONLY

#### PART: MATHEMATICS

**10 questions, 10 marks each. Total: 100 points**

1	2	3	4	5	6	7	8	9	10	Total

Staff name and signature: \_\_\_\_\_

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**Question 1.**

a) **Simplify:**

**[5m]**

$$\frac{(x^2 - 9)^2}{x^2 - 6x + 9} =$$

b) **Evaluate if  $a = 2$ :**

**[5m]**

$$\frac{1 + \frac{2}{a}}{1 - \frac{1}{a}} =$$

**Question 2.**

**[10m]**

Two trucks start driving toward each other from cities 300 km apart.

Truck A travels 10 km/hour faster than Truck B. They meet after 5 hours.

Find the speed of each truck.

**Question 3.**

a) **Factorize completely:**

**[5m]**

$$6x^2 - 17x + 12$$

b) **Solve the equation:**

**[5m]**

$$6x^2 - 17x + 12 = 0$$

**Question 4.****[10m]**

Barno has  $n$  marbles. She gives her sister a fifth of her marbles. Then she gives her cousin half of the remaining marbles. Write an expression, in terms of  $n$ , for the number of marbles that Barno has now. Give your answer in its simplest form.

**Question 5.****[10m]**

A store sells T-shirts and hoodies. Buying 3 T-shirts and 2 hoodies costs \$92. Buying 5 T-shirts and 1 hoodie costs \$95. Then the store raises the price of T-shirts by 20% and gives a 10% discount on hoodies. What is the final price of one T-shirt and one hoodie?

**Question 6.****[10m]**

Umida thinks of two whole numbers. Both numbers are greater than 6. The lowest common multiple (LCM) of the two numbers is 90. The highest common factor (HCF) of the two numbers is 6. Find the two numbers.

**Question 7.****[10m]**

Yasmina has 4 white flowers, 3 red flowers and  $x$  yellow flowers. She picks a flower at random. The probability that it is white is  $\frac{1}{5}$ . Find the probability that it is yellow.

**Question 8.****[10m]**

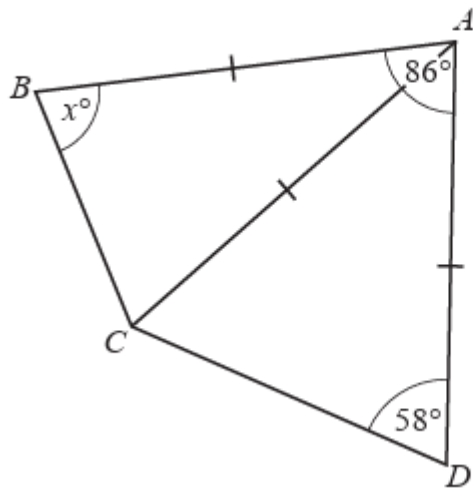
Amir rents a café room for a birthday party. The cost of renting the café room is \$15.50 for the first hour and then \$7.25 for each additional hour. He pays \$95.25 in total. Work out the total number of hours he rents the café room for.

**Question 9.****[10m]**

A bag of rice costs \$ $r$  and a bag of almonds costs \$ $a$ . Po'lat buys  $x$  bags of rice and  $y$  bags of almonds. Write down an expression for the change that Po'lat receives from a \$20 note.

**Question 10.**

**[10m]**



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Triangle ABC and triangle ACD are isosceles. Angle DAB = 86° and angle ADC = 58°. Find the value of  $x$ .

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