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SAMAGRA SHIKSHA, KERALA
E 703
Second Term Evaluation 2019-20
Mathematics
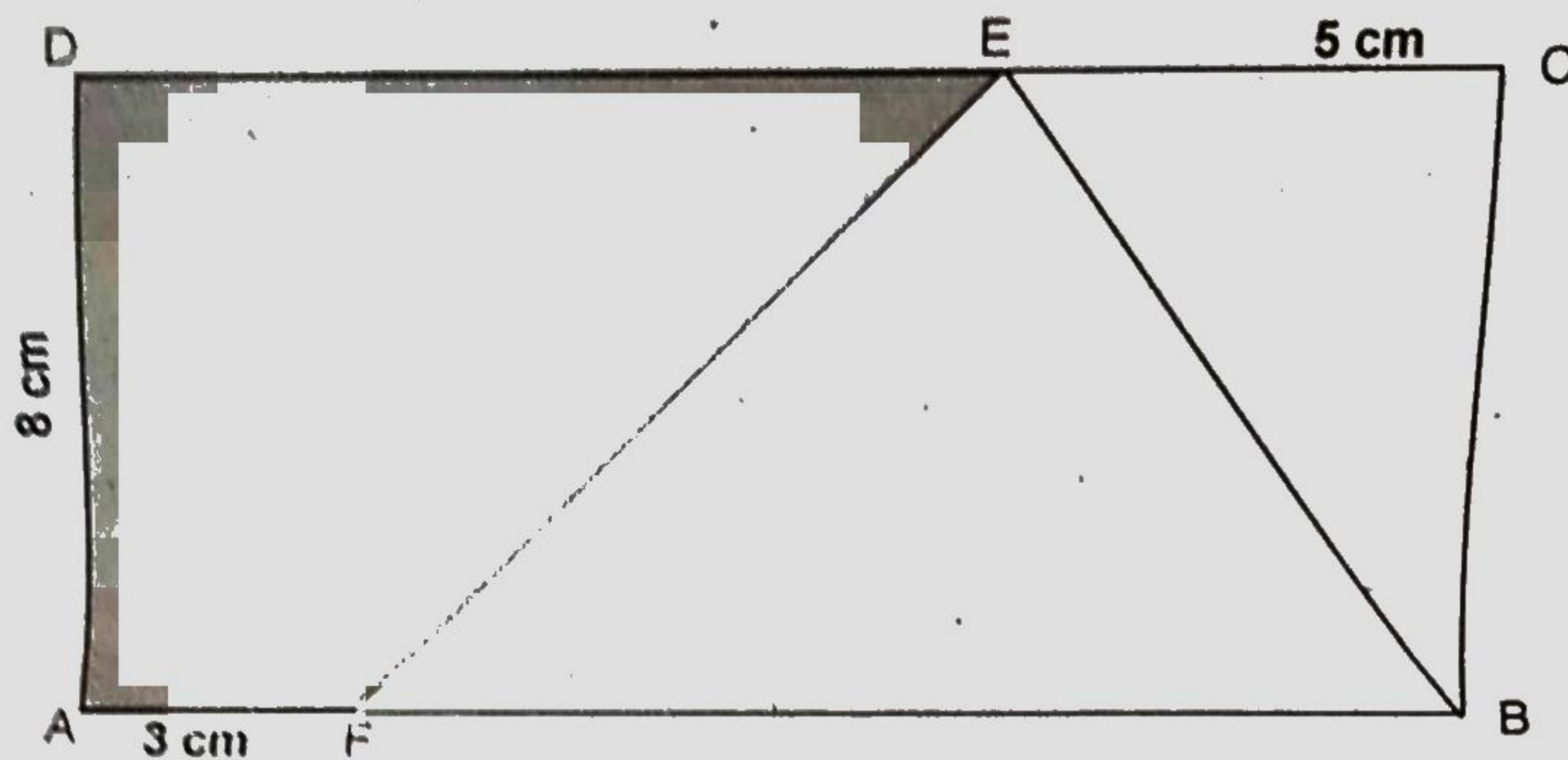
Class : 7
Time : 2 hrs

Instructions

1. 15 minutes cool-off time is to be allotted for reading and understanding the activities.

2. Answer any **SIX** from the given **EIGHT** activities.

Activity 1 - Find the Area

In the figure, ABCD is a rectangle of 14 cm length and 8 cm breadth.

AF = 3 cm, EC = 5 cm.

A) Find the area of rectangle ABCD.

B) Find the area of triangle BCE.

C) Find the area of triangle BEF.

D) What is the area of the shaded portion?

Activity 2 - Let's Make a Chain

Sudha and Aami are making a chain. Sudha has 18 black beads and 12 white beads. Aami has a total of 20 black and white beads. Both of them have the same ratio of black and white beads.

A) What is the ratio of the black and white beads?

B) Find the number of black beads and white beads that Aami has?

C) Sudha got 12 more black beads. Now, what will be the ratio of black and white beads with her?

Activity 3 - Perfect Square

A) Write first ten perfect squares.

B) What is the sum of first ten odd numbers?

   a) 20   b) 50.   c) 55   d) 100

C) Which one is not a perfect square?

   a) 4900   b) 16×10^{26} c) 16000   d) 4×10^8

D) Which one is the square of a fraction?

   a) $1\dfrac{1}{4}$ b) $2\dfrac{1}{4}$ c) $3\dfrac{1}{4}$ d) $4\dfrac{1}{4}$

E) If $26 \times 26 = 676$

   $(0.26)^2 = ?$

Activity 4 - Draw a Triangle

A) Which one of the following measures can be the sides of a triangle?

   a)   3 cm, 4 cm, 7cm
   b)   6 cm, 7 cm, 14 cm
   c)   4 cm, 5 cm, 10 cm
   d)   4 cm, 5 cm, 8 cm

B) Draw a triangle using the measure you have selected.

C) Measure and write the largest angle of the triangle you have drawn.

Activity 5 - Complete the Table

The table given below is presented by a teacher in the class related to time, distance and speed. Complete the table.

Distance	Speed	Time
64 km	16 km/hour	....
....	64 km/hour	4 hour
500 km	....	20 hour
400 m	50 m/second	....
5400 m	....	6 minute

Activity 6 - Student Police

A) Where can you identify the square root of 1681?

    a)   Between 16 and 30

    b)   Between 30 and 40

    c)   Between 40 and 45

    d)   Between 45 and 50

B) 961 is the biggest three digit number which is a perfect square. What is the square root of the number?

C) 784 students of Puthur High School were assembled in equal rows and columns in the assemly. Number of students in each rows and columns are equal. Among these SPC students in their uniforms were standing in 3 rows. Find the number of students without SPC uniforms.

Activity 7 - Train Journey

The distance between Thiruvananthapuram and Manglore is 600 kms. A goods train leaves Thiruvananthapuram to Manglore at 8 am. An express train leaves Thiruvananthapuram after 6 hours runs at a speed 60 km/hr. It reached with the goods train after 4 hours.

A) How far did the Express Train travel when it reached with the Goods Train?

B) How many hours did the Goods Train travel when the Express Train reached with it?

C) Find the average speed of Goods Train.

D) What will be the difference in the time of both trains when it reached in Manglore in the above mentioned speed?

Activity 8 - Right Angled Triangle

A) Which among is not suitable to draw a triangle under any circumstances?

    a)   When three sides are given.

    b)   Two sides and any one of the angles are given.

    c)   One side and the two angles on it are given.

    d)   Two sides and its angle are given.

B) Draw a right angled triangle of perpendicular sides 6 cm and 8 cm.

C) Find the length of the third side of the above right angled triangle.