

**EAST PRESTON ISLAMIC COLLEGE**  
**Year 9 Holiday Homework End of Term 2**

**DUE: Monday, First week of Term 3, 2018**

Have a safe and wonderful time on your Holidays!!!!

From your Year 9 Maths Teachers.

**ALGEBRAIC EQUATIONS**

$$x = Y$$

$$W = x + Z$$

$$Z = a + Y$$

1. If  $x = 25$  and  $W = 125$  then find the value of  $a$

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2.  $xyz = 1$

$$x = 100 \text{ and } y = 50$$

Find the value of  $z$ .

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3.  $ab = rs$

$$a = 50, r = 20, b = 100$$

Find the value of  $s$

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4. 
$$P = \frac{h + w}{2}$$

If  $P = 25$  and  $w = 34$ , find the value of  $h$ .

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5.  $R = \frac{n(n-3)}{2}$     $S = n^2 + n$

If  $n = 10$ , find the value of  $R + S$

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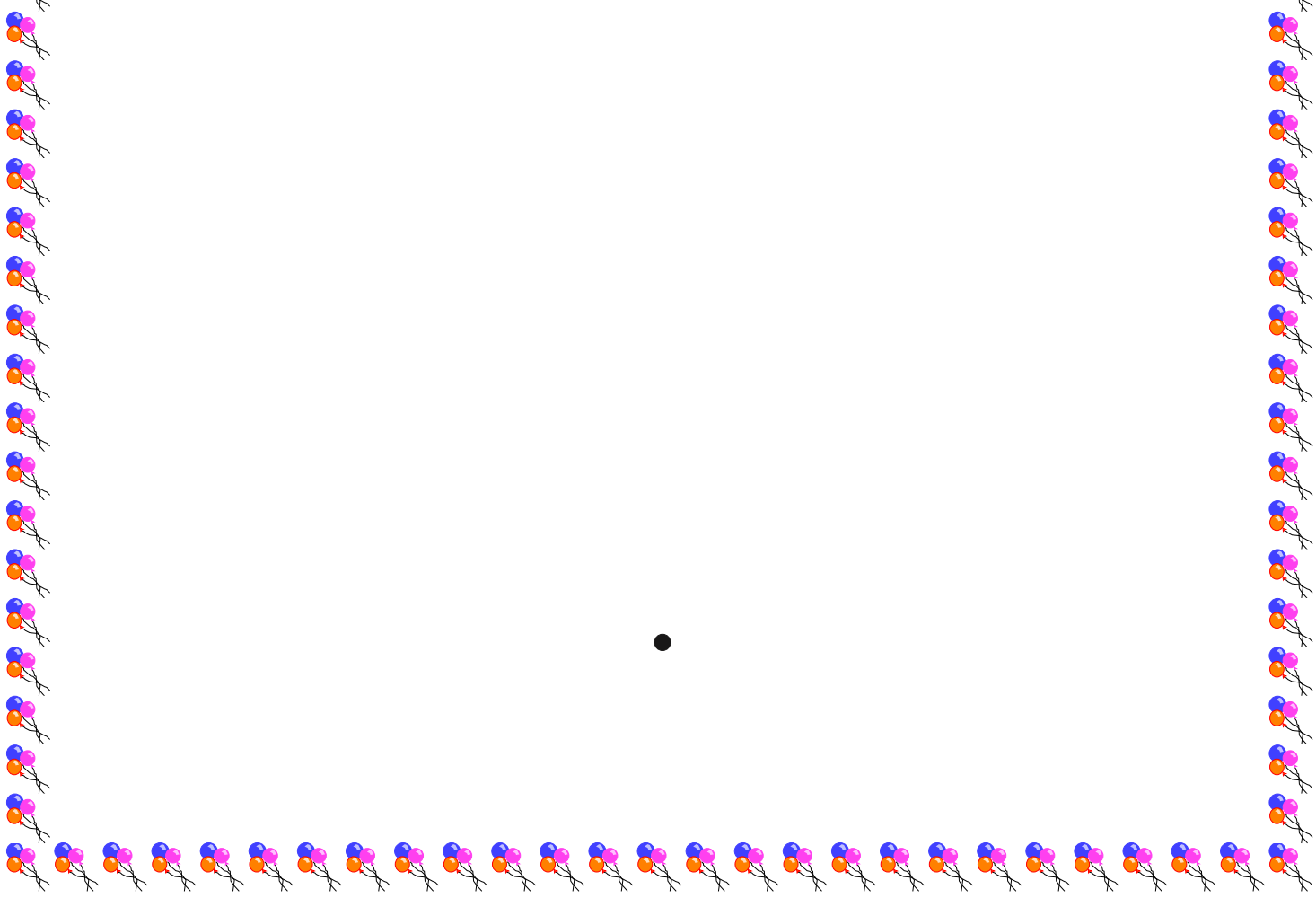
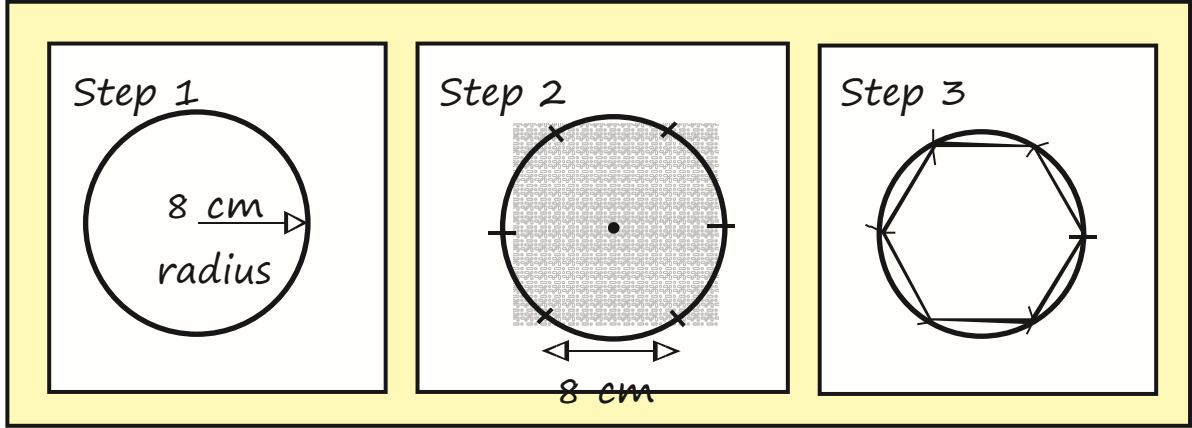
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### DRAWING POLYGONS

For this exercise you will need a pencil, ruler and compass.

Draw a regular hexagon with sides 8 cm.

The steps are illustrated in the diagram below.



## AREA APPLICATIONS

1. A swimming pool with dimensions  $30\text{ m} \times 10\text{ m}$  is surrounded by a brick path  $2\text{ m}$  wide. Calculate the area of the path.

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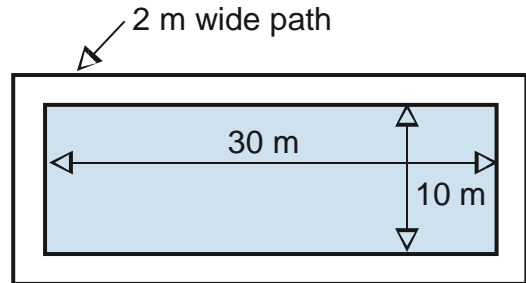
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The Rolled Turf company sells rolls of readymade lawn. The rolls are  $0.8\text{ m}$  wide and  $2\text{ m}$  long. The plan below shows a section that needs to be covered in turf.

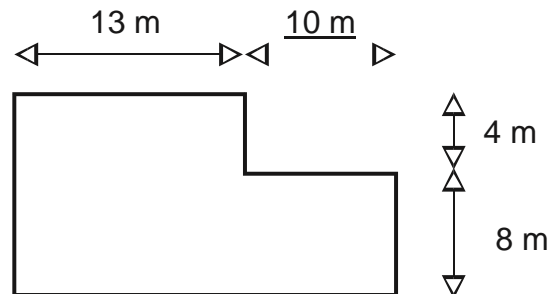
2. Calculate the area of the section.

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3. How many rolls of turf are needed to cover the section?

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4. Turf costs  $\$18$  per roll. How much will it cost to complete the job?

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Find all the missing angles.

