

Test 9 : Trigonometry 2**Time: 1 hour****Marks: 50****Question 1**

Use a calculator to determine θ (correct to ONE decimal place), ($\theta < 90^\circ$) in each of the following:

1.1 $3 \cos \theta = 5$

1.2 $3 \tan \theta = 5$

1.3 $5 \sin (2\theta + 10^\circ) - 4 = 0$

(10)**Question 2**

In the sketch below, $\triangle BCD$ is right angled at C, $BD = 3$ units, $\hat{BDC} = 30^\circ$ and $\hat{ABE} = 20^\circ$. Also, BCDE is a rectangle. calculate the lengths of

2.1 BC

(4)

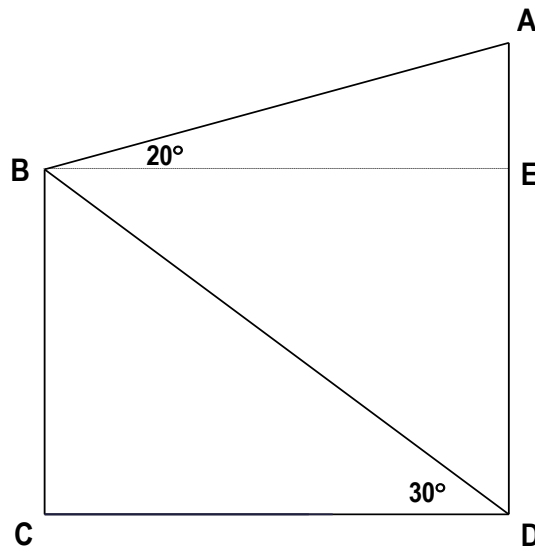
2.2 CD

(4)

2.3 AD

(6)

2.4 Angle DBA

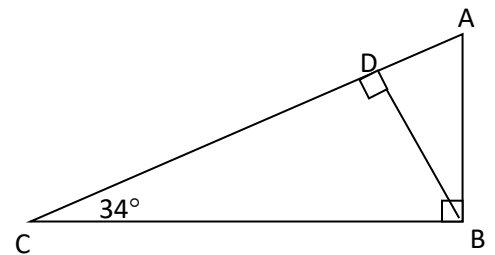
(3)**[17]****Question 3**

With reference to the figure alongside:

3.1 Write down two ratios for $\cos 34^\circ$. **(4)**

3.2 If $CD = 8,3$ cm, calculate the value of BD **(4)**

3.3 Write down a trigonometric definition for $\frac{AC}{BC}$. **(2)**

[11]

Question 4

In the figure alongside $MN \perp NR$, $\angle MRN = 42^\circ$, $MN = 8$ units, $PR = 5$ units and $PR \perp NR$.

4.1 Calculate NR. (4)

4.2 Calculate MR (4)

4.3 Calculate PN (4)

[12]

