

### Geometry Week 26 Friday Quiz

( No calculator) You may use your notebook, you must show all details.

Pre-Calc and College math quiz is on page 2

#### Question 1

Evaluate without using a calculator:

a)  $3\sin 30^\circ =$

b)  $5\cos 30^\circ =$

c)  $2\tan (2\pi/3) =$

d)  $2\cos \frac{3\pi}{4} + 6\tan(-\frac{\pi}{6})$

#### Question 2:

Write the following angles in Radians form: (Leave your answer with  $\pi$ )

1)  $135^\circ =$  \_\_\_\_\_

#### Question 3

For the given Special Right triangle, label the two missing sides and evaluate the trigonometric ratios below, leave answers in exact form;

$\sin 60^\circ =$

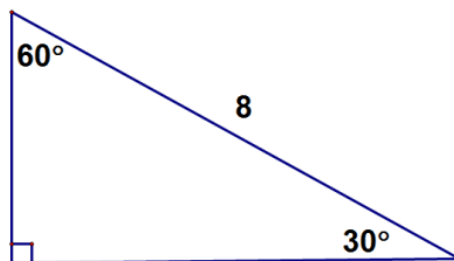
$\cot 60^\circ =$

$\cos 60^\circ =$

$\csc 60^\circ =$

$\tan 60^\circ =$

$\sec 60^\circ =$



## **PC and CP Week 26 Friday Quiz**

**( No calculator) You may use your notebook, you must show all details.**

### **Question 1**

Write the partial Fraction decomposition of the rational expression below:

$$\frac{4x^2 - 6x + 7}{(x + 1)(2x + 3)(4x - 1)}$$

### **Question 2**

Evaluate the cross product of the vectors below using minor determinants, also determine the angle ( $\theta$ ) between the two vectors, leave your answer in **arc-cos** form. (No calculators):

$$\mathbf{U} = 3\mathbf{i} - 5\mathbf{j} + 4\mathbf{k} \quad \text{and} \quad \mathbf{V} = -4\mathbf{i} + 6\mathbf{j} + 2\mathbf{k}$$

a)  $\mathbf{U} \times \mathbf{V} =$

b)  $\mathbf{V} \times \mathbf{U} =$

c)  $\theta =$