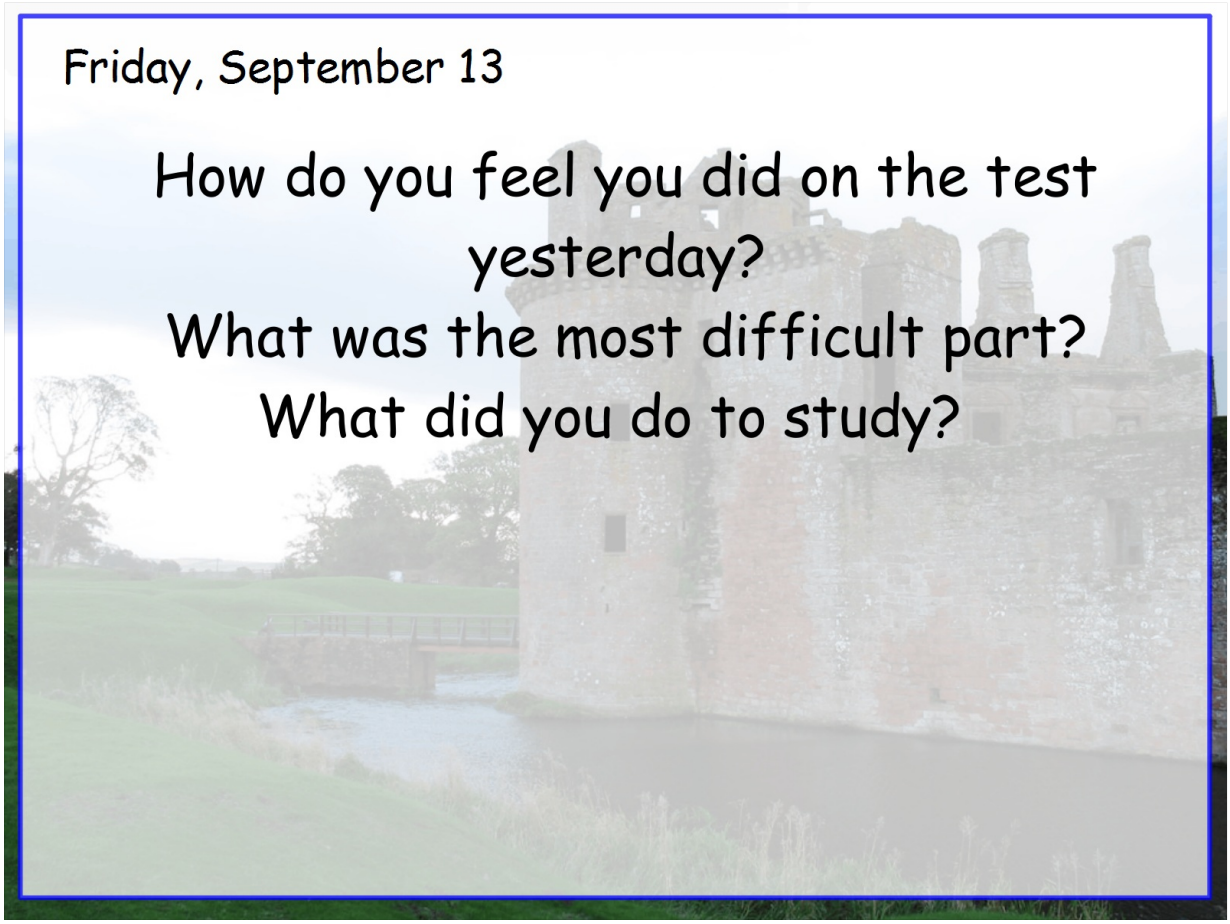
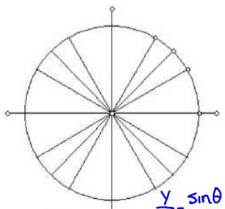


September 13

Students will verbally explain how to find the coordinates of specific points around the unit circle

(using the words:
angle, radius, trig functions…)



x y $\frac{y}{x}=\frac{\sin\theta}{\cos\theta}$ $\frac{1}{x}=\frac{1}{\cos\theta}$ $\frac{1}{y}=\frac{1}{\sin\theta}$ $\frac{x}{y}=\frac{\cos\theta}{\sin\theta}$

	m^R	m°	$\cos(\theta)$	$\sin(\theta)$	$\tan(\theta)$	$\sec(\theta)$	$\csc(\theta)$	$\cot(\theta)$
	0		1	0	0	1	undef.	undef
	$\frac{\pi}{6}$		$\frac{\sqrt{3}}{2}$	$\frac{1}{2}$	$\frac{1}{\sqrt{3}}$	$\frac{2}{\sqrt{3}}$	2	$\sqrt{3}$
	$\frac{\pi}{4}$		$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{2}}{2}$	1	$\frac{2}{\sqrt{2}}$	$\frac{2}{\sqrt{2}}$	1
	$\frac{\pi}{3}$		$\frac{1}{2}$	$\frac{\sqrt{3}}{2}$	$\sqrt{3}$	2	$\frac{2}{\sqrt{3}}$	$\frac{1}{\sqrt{3}}$
	$\frac{\pi}{2}$		0	1	undefined	undefined	1	0
	$\frac{2\pi}{3}$		$-\frac{1}{2}$	$\frac{\sqrt{3}}{2}$	$-\sqrt{3}$	-2	$\frac{2}{\sqrt{3}}$	$-\frac{1}{\sqrt{3}}$
	$\frac{3\pi}{4}$		$-\frac{\sqrt{2}}{2}$	$\frac{\sqrt{2}}{2}$	-1	$-\frac{2}{\sqrt{2}}$	$\frac{2}{\sqrt{2}}$	-1
	$\frac{5\pi}{6}$		$-\frac{\sqrt{3}}{2}$	$\frac{1}{2}$	$-\frac{1}{\sqrt{3}}$	$-\frac{2}{\sqrt{3}}$	2	$-\sqrt{3}$
	π		-1	0	0	-1	undefined	undef
	$\frac{7\pi}{6}$		$-\frac{\sqrt{3}}{2}$	$-\frac{1}{2}$	$\frac{1}{\sqrt{3}}$	$-\frac{2}{\sqrt{3}}$	-2	$\sqrt{3}$
	$\frac{5\pi}{4}$		$-\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{2}}{2}$	1	$-\frac{2}{\sqrt{2}}$	$-\frac{2}{\sqrt{2}}$	1
	$\frac{4\pi}{3}$		$-\frac{1}{2}$	$-\frac{\sqrt{3}}{2}$	$\sqrt{3}$	-2	$-\frac{2}{\sqrt{3}}$	$\frac{1}{\sqrt{3}}$
	$\frac{3\pi}{2}$		0	-1	undefined	undefined	-1	0
	$\frac{5\pi}{3}$		$\frac{1}{2}$	$-\frac{\sqrt{3}}{2}$	$-\sqrt{3}$	2	$-\frac{2}{\sqrt{3}}$	$-\frac{1}{\sqrt{3}}$
	$\frac{7\pi}{4}$		$\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{2}}{2}$	-1	$\frac{2}{\sqrt{2}}$	$-\frac{2}{\sqrt{2}}$	-1
	$\frac{11\pi}{6}$		$\frac{\sqrt{3}}{2}$	$-\frac{1}{2}$	$-\frac{1}{\sqrt{3}}$	$\frac{2}{\sqrt{3}}$	-2	$-\sqrt{3}$
	2π		1	0	0	1	undef	undef

$$\sin(\theta) = \frac{\text{opposite}}{\text{hypotenuse}}$$

Cosecant

$$\csc(\theta) = \frac{\text{hypotenuse}}{\text{opposite}}$$

$$\tan(\theta) = \frac{\text{opposite}}{\text{adjacent}}$$

Cotangent

$$\cot(\theta) = \frac{\text{adjacent}}{\text{opposite}}$$

Secant

$$\sec(\theta) = \frac{\text{hypotenuse}}{\text{adjacent}}$$

$$\cos(\theta) = \frac{\text{adjacent}}{\text{hypotenuse}}$$

hypotenuse adjacent opposite

pg 133 #5 - 23 (odd), 25, 29, 31 - 37

$\frac{12}{7} > 1 \Rightarrow$ in Quadrant 3 or 4

$\frac{12}{7} > \frac{3}{2} \Rightarrow$ in Quadrant 4