

# TEAM MATH QUEST – MASTER KEY

2013 Senior MESA Day

TEAM INFORMATION			
School: _____	<b>MASTER KEY</b>	Center: _____	<b>MESA</b>
Student Names:	Grade:	Current Math Class:	
1 _____	_____	_____	
2 _____	_____	_____	
3 _____	_____	_____	
4 _____	_____	_____	

*Note: All answers must be in reduced form and include appropriate units of measurement.*

#	Team Answer	#	Team Answer	#	Team Answer
1	$\frac{-3 - 24i}{13}$	11	$(x + 5)^2 + (x - 5)^2 = 50$	21	-34
2	$\frac{\pi}{3}, \frac{5\pi}{3}$	12	$-\infty$	22	3 sacks
3	$x^4 + 51x^2 + 98 = 0$	13	$\frac{5}{2}\sqrt{2}$	23	8 inches
4	25 feet	14	[0,1]	24	0.566
5	$\frac{\sqrt{1 - x^2}}{x}$	15	200 tickets at \$4, 300 tickets at \$5, \$2300 max	25	60.6°
6	$145^\circ F < t < 155^\circ F$	16	\$205	26	50
7	$4\pi$	17	$8\sqrt{\frac{6}{\pi}} \text{ ft}^3$	27	$\frac{3y - 2x}{2y - 3x}$
8	$58i + 4j$	18	2.218	28	0
9	275	19	$y = x + 2$	29	$-\frac{5}{4} \pm \frac{\sqrt{33}}{4}$
10	7	20	$\sqrt{2}$	30	4 mL

FOR JUDGE'S USE ONLY				
# Correct answers		x 4 pts	=	
<i>minus</i>				
# Incorrect answers <i>(do not include non-responses)</i>		x 1 pt	=	
<b>TOTAL SCORE</b>				