

2017 Ciphering Time Trials
Answer Key

1.	$(6.5, -1.5)$ or $(6\frac{1}{2}, -1\frac{1}{2})$ or $(\frac{13}{2}, -\frac{3}{2})$	1	16.	8005	16
2.	$-\frac{\sqrt{15}}{4}$	2	17.	90	17
3.	8	3	18.	$\frac{4}{35}$	18
4.	49	4	19.	-53	19
5.	$5x + 7y + 4z = 116$	5	20.	$(8, 0, -7)$	20
6.	20.42	6	21.	63.875	21
7.	$-20.\bar{6}$ or $-20\frac{2}{3}$ or $-\frac{62}{3}$	7	22.	591	22
8.	$3\frac{9}{13}$ or $\frac{48}{13}$	8	23.	$2\sqrt{6} + 2\sqrt{3}$	23
9.	$\frac{320\pi\sqrt{10}}{3}$	9	24.	41.7	24
10.	$2.\bar{3}$ or $2\frac{1}{3}$ or $\frac{7}{3}$	10	25.	IV or 4 or 4th	25
11.	432	11	26.	$\frac{\sqrt{373}}{7}$	26
12.	$\frac{41}{120}$	12	27.	12	27
13.	165	13	28.	480	28
14.	9	14	29.	$5\sqrt{10}$	29
15.	32.8 or $32\frac{4}{5}$ or $\frac{164}{5}$	15	30.	56	30