Rocket City Math League

2021-2022

Interschool Test

Senior Division

Write the answers in the answer boxes below. All answers must be written in exact, reduced, simplified, and rationalized form. Leave answers in terms of π unless otherwise specified. **No calculators, books, or other aides may be used. Each school may submit only one official answer sheet. Answer sheets must be postmarked by December 6, 2021. Time limit: 30 minutes**

1. *(3 points)* 16954	**6.** *(4 points)* 364	**11.** *(5 points)* $\frac{5}{2}$
2. *(3 points)* $y = \frac{x-1}{2x+3}$	**7.** *(4 points)* 8	**12.** *(5 points)* 30.5 or $\frac{61}{2}$
3. *(3 points)* 10080	**8.** *(4 points)* $\frac{196\pi \pm 49\sqrt{3} - 98}{4}$	**13.** *(5 points)* -12
4. *(3 points)* 48	**9.** *(4 points)* 4.22 or $\$4.22$	**14.** *(5 points)* -1
5. *(3 points)* $\frac{2450}{27}$ or $90\frac{20}{27}$	**10.** *(4 points)* $8x^2 + 7x + 36 + \frac{194x + 60}{x^2 - 5x - 2}$	**15.** *(5 points)* 229

Sponsor Name: _____ Sponsor E-mail: _____

School Name: _____

School Address: _____

City _____ State ____ Zip _____

Grades in your school: _____

Grades participating in the Inter-School:_____

Rocket City Math League www.rocketcitymath.org
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