

SETON HALL UNIVERSITY
TWENTYSEVENTH ANNUAL
JOSEPH W. ANDRUSHKIW
MATHEMATICS COMPETITION

1. $x = 2$

2. 16

3. 24

4.: πR^2

5. $35/29$ or $1 \frac{6}{29}$ hours

6. -6

7. $5/3 = 1 \frac{2}{3}$ hr

8.: $\left(\frac{21}{5}, \frac{3}{5}\sqrt{31}\right), \left(\frac{21}{5}, -\frac{3}{5}\sqrt{31}\right)$

9.: $(V+1)^V + V^{V+1} + (2V+1)^{2V+1}$

10.: -w

11.: $\frac{4\pi - 3\sqrt{3}}{12\pi}$

12.: $\frac{-7}{12}x^{27}y^{-1}$

13.: AP 40, GP 675

14.: $7/6\pi, 11/6\pi, 3/2\pi, \pi/4, 3/4\pi, 5/4\pi, 7/4\pi$

15.: $P = 156, A = 4056/5 = 811.2$

16.: (1) $1/2592$ (2) $1/3542$