

Celebrating Sixty
30 Problems and 30 Solutions
Answers

- 1a.** 60 **1b.** 60 **1c.** 24 and then 60
- 2.** Tuesday
- 3.** 1830
- 4a.** 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60 **4b.** 168 **4c.** $2^2 \cdot 3 \cdot 5$
- 5a.** only common factor is 1 (1951 is prime) **5b.** $1 \times 9 + 51 = 60$
- 6.** 6
- 7.** 120
- 8.** 60
- 9.** 60
- 10.** 60 degrees
- 11.** 174 degrees
- 12.** 61, 32, 23, 19, 17, 16 (all feet)
- 13.** 225 square feet
- 14.** $-1, 0, 1$ or $-3, -2, -1$
- 15.** $87/60$ or $29/20$
- 16a.** Izzy **16b.** person 56 **16c.** yes - see solutions online...
- 17a.** 97 **17b.** varies but TOY, PEST, and STAT work
- 18.** 13
- 19.** 60 zeroes
- 20.** $2^4 \cdot 3^2 \cdot 5 \cdot 7 = 5040$
- 21.** $12\sqrt{5\sqrt{3}}$ inches
- 22.** $100\sqrt{3}$ square inches
- 23.** 62
- 24.** 55^2
- 25.** 20
- 26.** 119
- 27.** 26
- 28.** 60
- 29a.** 90° **29b.** 30° **29c.** 75° **29d.** 80° **29e.** 39° **29f.** 18°
- 30.** 60, those 60 cats catch 1 mouse per minute or 100 mice in 100 minutes