

Meet 2 Answers

1. Arithmetic with Ratio and Proportion

November 1991

1. $\frac{7}{2}$
2. 2
- 3.

November 1992

1. 8
2. 68
- 3.

November 1994

1. 28.40
2. $-\frac{18}{5}$
3. 160

November 1995

1. 2 ft. 8 in.
2. 6
3. $\frac{2}{3}$ gallon or .67 gallon

November 1996

1. ± 12
2. 6
3. 18

November 1998

1. 780
2. 8
3. 17

November 1999

1. 4
2. 49
3. 20

November 2000

1. $\frac{2}{3}$
2. 84
3. 12.2 or 12.2 years

November 2001

1. 50
2. 90, 60, 45
3. 360

November 2002

1. 80
2. 14
3. $\pm \frac{3\sqrt{2}}{8}$

November 2003

1. 880
2. 32' 1"
3. 1280'

November 2004

1. \$22.50
2. y is halved
3. 72

November 2005

1. 3:4
2. $\frac{5041}{6084}$
3. (12, 4) or (-12, -4)

November 2006

1. 7
2. $\frac{20}{21}$
3. 1920

November 2007

1. \$1.50 or 1.50
2. \$1.95 or 1.95
3. 6 or $h = 6$

November 2008

1. 20 and 8
2. d
3. 1200

1. Arithmetic with Ratio and Proportion

November 2009

1. 4
2. 14
3. 11,418

November 2010

1. 687
2. 80
3. $9/20$

November 2011

- 1.
- 2.
- 3.

October 2012

1. 6 or 6 gal
2. $22/3$
3. 4 or 4 students

2. Series and Sequences

November 1988

1. 161
2. 3 or 9
3. 156

November 1989

1. 5880
2. $\frac{13}{2}$
3. 702

November 1991

1. 10
2. 332
3. 210

November 1992

1. 229
2. 106
3. 7, 28, 112

November 1993

1. $2\frac{2}{3}$
2. 3 or -1
3. 24

November 1994

1. 96
2. $\frac{61}{16}$
3. $26\frac{4}{81}$

November 1995

1. $16\sqrt[3]{3}$, 96, $192\sqrt[3]{3}$
2. 8 hr.
3. 2384

November 1996

1. $13\frac{1}{4}$, $15\frac{1}{2}$, $17\frac{3}{4}$
2. 87
3. 245

November 1998

1. 27
2. 193
3. 138600

November 1999

1. .0504
2. 774
3. 625

November 2000

1. 19
2. 60
3. 3

November 2001

1. $\frac{1}{2}$
2. 1830
3. 499

November 2002

1. 17
2. -36
3. 864

November 2003

1. 42
2. 1586
3. (4, 20, 100) and (100, 20, 4)

November 2004

1. 191
2. 100
3. 405

November 2005

1. $\pm\frac{3}{5}$
2. $\frac{10}{27}$
3. 10

2. Series and Sequences

November 2006

1. 385
2. \$914,000
3. 6

November 2007

1. 265
2. 486
3. 541

November 2008

1. 45
2. -3, -1, 1
3. $\frac{r}{1+r}$

November 2009

1. -27
2. $\frac{81}{256}$
3. 243

November 2010

1. -700
2. 21
3. $\frac{2}{3}$

November 2011

- 1.
- 2.
- 3.

October 2012

1. 918
2. 160
3. 3

3. Counting Principles and Binomial Theorem

December 1988

1. $\frac{2}{5}$
2. -112
3. 180

December 1989

1. 48
2. 9
3. $\frac{98}{285}$

November 1993

1. 133
2. 5184
3. 212

November 1994

1. -3
2. 256
3. 8

November 1995

1. $-20x^3y^3$
2. 207900
3. 990

November 1996

1. 21
2. 2048
3. 70

November 1998

1. 21
2. 24
3. $-20x^6y^3 + 120x^6y^2 - 240x^6y + 160x^6$

November 1999

1. 5
2. 6
3. 512

November 2000

1. $\frac{1}{80}$
2. 21
3. 44

November 2001

1. 1330
2. $\frac{28}{729}$
3. 70

November 2002

1. 12
2. -84
3. 80,640

November 2003

1. 720
2. 84
3. 400 or 120 or 456

November 2004

1. -3003
2. 99
3. 35

November 2005

1. 126
2. $-\frac{4}{7}$
3. 240

November 2006

1. 96
2. 20
3. 80

November 2007

1. $540x^3y^3$
2. 40,320
3. 325

3. Counting Principles and Binomial Theorem

November 2008

1. 60
2. 126,720
3. 32,400

November 2009

1. 3360
2. $\frac{35}{32}x^3y^4$
3. 3744

November 2010

1. 35
2. 350
3. 240

November 2011

- 1.
- 2.
- 3.

October 2012

1. 900,000
2. -7,168
3. 27

4. Polynomials

November 1988

1. $k \geq -\frac{49}{12}$
2. $T = -6$
3. 15

November 1989

1. $f(x) = 3x^2 + 6x - 7$
2. $x = -7$
3. $1/4$

November 1991

1. $\frac{3}{8} \pm \frac{\sqrt{105}}{8}$
- 2.
3. $2i, -3/2, 2$

November 1992

1. $-3/8$
2. $2, -4/3, 8/3, -1$
- 3.

November 1993

1. $2x^2 + 5x + 3$
2. $-1, \frac{1}{2} \pm \frac{\sqrt{5}}{2}$
3. $a = -1, b = -14$

November 1994

1. -5
2. $-2 < c < 6$
3. $P(x) = \frac{1}{15}x^3 - \frac{2}{5}x^2 - \frac{37}{15}x - 2$

November 1995

1. -72
2. -1
3. $x^3 - 3x^2 + 2x - 1$

November 1996

1. $-1\frac{1}{2}, 1\frac{1}{3}$
2. 28
3. 2, 3

November 1998

1. -17 or 19
2. 3
3. $(x-2)(x-1)(x-3)(x+3)$

November 1999

1. 0
2. $-\frac{3}{2}, -\frac{4}{3}$
3. $1, -2, \frac{-3 \pm \sqrt{17}}{2}$

November 2000

1. $8x + 9$
2. $\{3, -2, 1\frac{1}{2}\}$
3. 7

November 2001

1. 5
2. -7
3. -3

November 2002

1. 6
2. -8
3. $(x-2)^2(x-1)^3$

November 2003

1. 10
2. $a = 11, b = -15$
3. 4, 3, 2, -2

November 2004

1. $a^4 + 2a^3 + 4a^2 + 8a + 16$
2. 20
3. -8 or 1

November 2005

1. 14
2. $-13x^3 + 28x^2 - 23x$
3. -54

4. Polynomials

November 2006

1. **48**
2. $\pm\frac{3}{4}$ or $\pm\frac{2}{3}$
3. $\frac{1}{4}$

November 2007

1. **-54**
2. $3x + 2$
3. $\frac{1}{3}, -1\frac{1}{2}$

November 2008

1. $\pm 1, \pm 2, \pm\frac{1}{3}, \pm\frac{2}{3}$
2. $(x^2 + 1)(x^2 - 4x + 13)$
3. **45**

November 2009

1. $x^5 + 9x^4 + 14x^3 - 25x^2 - 5x + 6$
2. **4**
3. **a = -1, b = 2**

November 2010

1. **-10**
2. $4\frac{5}{6}$ or $\frac{29}{6}$
3. **-15**

November 2011

- 1.
- 2.
- 3.

October 2012

1. **1, -5/2, or 1, -2 1/2**
2. **-8**
3. **-5, 4, 2/3**

5. Areas and Volumes

November 1988

1. $\frac{3\sqrt{2}}{2}$
2. $\frac{b(h+2m)}{2(h+m)}$
3. $80 + 48\sqrt{3}$

November 1991

- 1.
2. $2\sqrt{2}$
- 3.

November 1992

1. 15
2. 12
- 3.

November 1993

1. 39
2. 5
3. $5\sqrt[3]{4}$

November 1994

1. $144\pi - 108$ (265.33)
2. $\frac{128\sqrt{3}}{3}$ or (73.90)
3. 3.646

November 1995

1. $48 - 12\pi$ or 10.301
2. 54
3. 2880

November 1996

1. $81\frac{1}{3}\pi$ or $\frac{244\pi}{3}$
2. 31.25
3. 24π

November 1998

1. 6
2. 24
3. $\frac{\sqrt{3}}{2} - \frac{\pi}{6}$

November 1999

1. 1152
2. $12\sqrt{15}$
3. $\frac{13\pi}{12}$

November 2000

1. $\frac{1}{8}$ or 1:8
2. 720 sq. in.
3. $\frac{\pi}{12}$

November 2001

1. 48
2. 35
3. 400

November 2002

1. A
2. 8.86
3. 2087.1

November 2003

1. 18
2. 3π or 9.425
3. $\frac{4\pi}{9} + \frac{23\sqrt{3}}{3}$ or $\frac{4\pi + 69\sqrt{3}}{9}$ or 14.68

November 2004

1. 20
2. 121.96
3. 1374.64 or $972\sqrt{2}$

November 2005

1. $\frac{1}{3}$
2. $\frac{27\sqrt{3}}{4}$
3. $48 + 48\sqrt{2}$

November 2006

1. 2.5
2. 65.73
3. 18

5. Areas and Volumes

November 2007

1. 8
2. 3175 or 3175 mi.
3. 25

November 2008

1. 600
2. $392\pi \text{ m}^3$ or 1231.50 m^3
3. 864

November 2009

1. $288\sqrt{3}$ or 498.8306
2. 12
3. $\sqrt{\pi} : 1$ or 1.7725:1

November 2010

1. 11
2. 7854
3. 190

November 2011

- 1.
- 2.
- 3.

October 2012

1. or 32 cm^3
2. $1024/3$ or $341\frac{1}{3}$ or 341.3333 (in^3)
3. $8000\pi\sqrt{3}/3$ or 14510.39