

Meet 5 Answers

Arithmetic with Statistics
March 1997

- 1.
- 2.
- 3.

Arithmetic with Statistics
March 1999

1. Peg $\frac{1}{48}$
2. 19
3. 68

Arithmetic with Statistics
February 2000

1. 24321₅
2. 5
3. 4.07

Arithmetic with Statistics(Calculators)
February 2001

1. 125
2. 6
3. 61

Arithmetic with Statistics(Calculators)
February 2002

1. 12
2. 2 : 1
3. 10

Arithmetic with Statistics(Calculators)
March 2003

1. .00047
2. 12.08 or 13.51 or 13.81 or 0
3. 50

Arithmetic with Statistics(Calculators)
March 2004

1. 1
2. 17
3. 121.067

Arithmetic with Statistics(Calculators)
March 2005

1. 6
2. 2
3. 50

Arithmetic with Statistics(Calculators)
March 2006

1. First : $\frac{47}{63}$ Last : $\frac{63}{89}$
2. 13
3. 47

Arithmetic with Statistics(Calculators)
March 2007

1. 123
2. 14, 15, 19, 21, 21, 24
3. n + m

Arithmetic with Statistics(Calculators)
March 2008

1. 15
2. 110
3. 6

Conics**March 1989**

1. $y = \pm 2(x+3)$

2. $x^2 + y^2 = \frac{1}{2}$

3. $(4,9), (8,0)$

Conics**March 1990**

1. $4\sqrt{10}$

2. $\frac{(y-2)^2}{25} - \frac{2(x-3)^2}{75} = 1$

3. $(x-2)^2 + (y+3)^2 = 16$

Conics**March 1992**

1.

2.

3.

Conics**March 1993**

1.

2.

3.

Conics**March 1994**

1. -137

2. $(y-3)^2 = 6(x+2)$

3. $x^2 + y^2 = 1.027$

Conics**March 1995**

1. $6\sqrt{3}$

2. $\frac{\sqrt{73}}{2}$

3. $\frac{x^2}{8} - \frac{(y-8)^2}{64} = 1$

Conics**March 1996**

1. $(5,-6), (1,-6)$

2. $(x-3)^2 = -12(y+1)$ or
 $y = -\frac{1}{12}x^2 + \frac{1}{2}x - \frac{7}{4}$

3. $\frac{(x-5)^2}{25} + \frac{(y+3)^2}{9} = 1$

Conics**March 1997**

1. 6

2. $(0,-2)$

3. $(x-3)^2 = -8(y-1)$ and
 $(x-3)^2 = 8(y+3)$

Conics**March 1998**

1. $(0 \pm 4\sqrt{5})$

2. $(2,-2)$

3. $x^2 + y^2 - 18x - 20y + 81 = 0$

Conics(No Calculators)**March 1999**

1. $(3,-1)$

2. $9x^2 + 25y^2 - 72x - 100y + 19 = 0$

3. $3x^2 - y^2 - 12 = 0$

Conics
March 2000

1. $\left(2, \frac{1}{2}\right)$
2. $\frac{(x-4)^2}{144} + \frac{(y-6)^2}{36} = 1$
3. $\frac{(x-5)^2}{16} - \frac{(y+3)^2}{4} = 1$

Conics
March 2001

1. $(0 \pm 2\sqrt{3})$
2. $\frac{(x+3)^2}{64} - \frac{(y-5)^2}{225} = 1$
3. $\left(-1\frac{1}{13}, 11\frac{8}{13}\right)$ and $\left(-1\frac{1}{13}, 2\frac{5}{13}\right)$

Conics
March 2002

1. $(12,3), (4,3)$
2. $\frac{y^2}{16} - \frac{x^2}{36} = 1$
3. $(x-12)^2 + (y-5)^2 = 25$

Conics(No Calculators)
March 2003

1. 40
2. $\frac{\sqrt{89}}{8}$
3. $x^2 + 3y^2 - 4x - 18y - 5 = 0$

Conics(No Calculators)
March 2004

1. $(2,3)$
2. $x^2 + 6x + 20y + 49 = 0$
3. $(x+3)^2 + (y-2)^2 = 16$ or
 $x^2 + y^2 + 6x - 4y - 3 = 0$

Conics(No Calculators)
March 2005

1. -39
2. $x^2 = -\frac{8}{3}y$
3. 4.5

Conics(No Calculators)
March 2006

1. $(4,0), (-4,0)$
2. $25x^2 + 4y^2 + 100x - 40y + 100 = 0$
3. $y^2 - 20x - 10y + 105 = 0$ or
 $(y-5)^2 = 20(x-4)$

Conics(No Calculators)
March 2007

1. Center: $(2, -5)$, Radius: 6
2. 66
3. $\frac{(x-5)^2}{36} + \frac{(y-2)^2}{32} = 1$

Conics(No Calculators)
March 2008

1. $x^2 + y^2 = 25$
2. $\frac{(x+8)^2}{1} - \frac{(y+4)^2}{3} = 1$
3. $(x-3)^2 + (y-4)^2 = 25$

Trigonometric Equations and Identities
(No Calculators) March 1989

1. $\frac{\sqrt{6}-\sqrt{2}}{4}$

2. -4

3. p

Trigonometric Equations and Identities
March 1990

1. $2\sin^2 x - 1$

2. 0

3. $\left\{ \frac{p}{2}, \frac{7p}{6} \right\}$

Trigonometric Equations and Identities
March 1992

1.

2.

3.

Trigonometric Equations and Identities
March 1993

1.

2.

3.

Trigonometric Equations and Identities
March 1994

1. $\frac{4p}{3}$ or $\frac{5p}{3}$

2. $0^\circ, 45^\circ, 180^\circ$

3. $45^\circ \leq x \leq 90^\circ$ $135^\circ \leq x \leq 180^\circ$
 $225^\circ \leq x \leq 270^\circ$ $315^\circ \leq x \leq 360^\circ$

Trigonometric Equations and Identities
(No Calculators) March 1995

1. $\frac{p}{4}, \frac{3p}{4}, \frac{5p}{4}, \frac{7p}{4}$

2. $\frac{x\sqrt{2}-\sqrt{2-2x^2}}{2}$

3. $\sin y + \cos y$

Trigonometric Equations and Identities
(No Calculators) March 1996

1. $20^\circ, 340^\circ$

2. $2\csc x$

3. $135^\circ, 315^\circ, 21^\circ 48', 201^\circ 48'$

Trigonometric Equations and Identities
(No Calculators) March 1997

1. $\sec x$

2. 900°

3. $3i \pm \frac{3}{2}, \sqrt{3} - \frac{3}{2}i$

Trigonometric Equations and Identities
(No Calculators) March 1998

1. $30^\circ, 90^\circ, 150^\circ, 270^\circ$

2. $2\tan^2 s$

3. $60^\circ, 210^\circ, 300^\circ, 330^\circ$

Trigonometric Equations and Identities
(No Calculators) March 1999

1. $\csc x$

2. $\frac{3}{5}$

3. $90^\circ n$ or $\frac{p}{2}n$ (n is an integer)

Trigonometric Equations and Identities
(No Calculators) March 2001

- 3
- $\cot x$
- 4

Trigonometric Equations and Identities
(No Calculators) March 2002

- $2\sec^2 x$
- $45^\circ, 90^\circ, 225^\circ, 270^\circ$

3. $\frac{p}{3}, \frac{2p}{3}, \frac{4p}{3}, \frac{5p}{3},$
 $\frac{p}{4}, \frac{3p}{4}, \frac{5p}{4}, \frac{7p}{4}$

Trigonometric Equations and Identities
(No Calculators) March 2003

- 45°
- $\frac{1}{2}$
- 105° and 345°

Trigonometric Equations and Identities
(No Calculators) March 2004

- 60, -60, 300, -300
- $\frac{\sqrt{2}}{4}$
- 40, 80, 160 or $\frac{2p}{9}, \frac{4p}{9}, \frac{8p}{9}$

Trigonometric Equations and Identities
(No Calculators) March 2005

- $45^\circ, 225^\circ$
- 6
- $4\sin q$

Trigonometric Equations and Identities
(No Calculators) March 2006

- $30^\circ, -30^\circ$
- $\sin^2 f$
- $30^\circ, 150^\circ, 120^\circ, -120^\circ$

Trigonometric Equations and Identities
(No Calculators) March 2007

- $\sec x$ or $\frac{1}{\sin x}$
- $90^\circ k, k \in I$ or $\frac{pk}{2}, k \in I$
- $-2 - \sqrt{3}$ or $-\sqrt{7 + 4\sqrt{3}}$

Trigonometric Equations and Identities
(No Calculators) March 2008

- $\frac{7p}{6}, \frac{11p}{6}$
- $\frac{31}{25}$ or $1\frac{6}{25}$ or 1.24
- 60° or 300°

***Algebraic Fractions with Factoring
November 1988***

1. $\frac{-2}{(x+1)(x-1)}$

2. $-\frac{1}{5}$

3. $\frac{5}{13}$

***Algebraic Fractions with Factoring
November 1989***

1. $\frac{w}{w-2}$

2. All Reals $x \neq 0, 1, 3$

3. $c = 5$ or $-5 - b - d$

***Algebraic Fractions with Factoring
November 1991***

1.

2.

3.

***Algebraic Fractions with Factoring
November 1992***

1.

2.

3.

***Algebraic Fractions with Factoring
November 1993***

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

2. $1\frac{5}{8}$

3. $\frac{3}{7}$ or $\pm\frac{\sqrt{10}}{2}$

***Algebraic Fractions with Factoring
March 1995***

1. $A = 1, B = -4, C = 7$

2. 15

3. $\frac{(1-2x)}{(x-1)}$

***Algebraic Fractions with Factoring
March 1996***

1. $\frac{1}{(x-1)}$

2. 0 or $-2\frac{4}{5}$

3. $A = 4, B = 3, C = 7$

***Algebraic Fractions with Factoring
March 1997***

1. $-14\frac{2}{3}$ or $-\frac{44}{3}$

2. 3 or -1

3. $1\frac{1}{2}$ min

***Algebraic Fractions with Factoring
March 1998***

1. $\frac{a-10b}{a+2b}$

2. $(x-2y)(x+2y)(a-3)(a+3)$

3. 12

***Algebraic Fractions with Factoring
March 1999***

1. $\frac{1}{4}$

2. $\frac{7}{13}$

3. $\frac{3}{2}$

**Algebraic Fractions with Factoring
March 2000**

1. $\frac{4x+5}{4x^3-3x^2}$

2. $\frac{2x^2+x-11}{(x-1)(x-2)(x+2)(x-3)}$

3. $6, \frac{25}{7}$

**Algebraic Fractions with Factoring
March 2001**

1. $-x-3$

2. $(16x-9y)(8z-3x)$

3. 7 or -1

**Algebraic Fractions with Factoring
(No Calculators) March 2002**

1. 2

2. 6

3. 0, -1, 4

**Algebraic Fractions with Factoring
(No Calculators) March 2003**

1. $\frac{1}{x^2}$

2. 7

3. 17, 44

**Algebraic Fractions with Factoring
March 2004**

1. $\frac{x^2+4x+12}{x(x+2)(x+3)}$ or $\frac{x^2+4x+12}{x^3+5x^2+6x}$

2. 15 hours

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

**Algebraic Fractions with Factoring
March 2005**

1.

2.

3.

**Algebraic Fractions with Factoring
March 2006**

1. $\frac{7}{5}$

2. 9

3. $\frac{2}{5}$

**Algebraic Fractions with Factoring
March 2007 (No Calculators)**

1. -1

2. C = 4, D = 2

3. $\frac{-4x^2+xy-4x}{x-4}$

**Algebraic Fractions with Factoring
March 2008 (No Calculators)**

1. ± 2

2. -24 or 60

3. 4

Circles and Spheres

March 1989

1. 75
2. $40 - 10\sqrt{7}$
3. 6

Circles and Spheres

March 1990

1. 40°
2. 65p
3. $3\sqrt{7}$

Circles and Spheres

March 1992

- 1.
- 2.
- 3.

Circles and Spheres

March 1993

- 1.
- 2.
- 3.

Circles and Spheres

March 1994

1. 6
2. 61.22
3. 10.2

Circles and Spheres

March 1995

1. 5
2. 4
3. $8\frac{2}{3}$

Circles and Spheres

March 1996

1. 60°
2. $2\frac{2}{3}$
3. $12\sqrt{5}$

Circles and Spheres

March 1997

1. 122°
2. $133\frac{1}{3}p$ or $\frac{400p}{3}$
3. $24\sqrt{3} + 28p$

Circles and Spheres

March 1998

1. 40
2. $40\frac{6}{7}$
3. $4\sqrt{37}$

Circles and Spheres

March 1999

1. $\frac{5p}{3}$
2. 4
3. $\frac{2\sqrt{3}-3}{3}$

Circles and Spheres

March 2000

1. 4p
2. 40
3. $2\sqrt{286}$

Circles and Spheres

March 2001

1. 25°
2. 320
3. $8\sqrt{3}$

Circles and Spheres

March 2002

1. 12
2. 24
3. 5

Circles and Spheres(No Calculators)

March 2003

1. 39°
2. 12
3. 9

Circles and Spheres(No Calculators)

March 2004

1. p
2. 22.5
3. $5\sqrt{6}$

Circles and Spheres(No Calculators)

March 2005

1. $2p$
2. 27
3. 137.5

Circles and Spheres(No Calculators)

March 2006

1. 11
2. $5\sqrt{17}$
3. $6\sqrt{9-2\sqrt{15}}$

Circles and Spheres(No Calculators)

March 2007

1. $\frac{\sqrt{3}}{3}$
2. $\frac{\sqrt{3}}{2}e$
3. 13.5

Circles and Spheres(No Calculators)

March 2008

1. 50°
2. 25
3. $\frac{\sqrt{3}}{1}$ or $\sqrt{3}:1$