

# Meet 1 Answers

## *Arithmetic with \* Operations* *December 1991*

- 1.
- 2.
- 3.

## *Arithmetic with \* Operations* *December 1992*

- 1.
- 2.
- 3.

## *Arithmetic with \* Operations* *October 1993*

1.  $9/16$  or  $.5625$
2.  $(3, 4)$  and  $(-3, 4)$
3. 9 and 15

## *Arithmetic with \* Operations* *October 1994*

1.  $522/85$
2. 48
3. 38 and 39

## *Arithmetic with \* Operations* *October 1995*

1.  $3/5$
2. 3 notebooks, 25 pens
3. 1994 by 128 people

## *Arithmetic with \* Operations* *October 1996*

1. 7
2. 127 or -273
3. 60%

## *Arithmetic with \* Operations* *October 1997*

1.  $104_5$
2. August 11
3.  $22/2 + 2$  (Check student ans. = 13)

## *Arithmetic with \* Operations* *October 1998*

1. 24
2. 2500
3.  $4609/512$

## *Arithmetic with \* Operations* *October 1999*

1. 97
2. 16,000 or \$16,000
3. 126

## *Arithmetic with \* Operations* *October 2000*

1. 17
2. 30
3. 10.8

## *Arithmetic with \* Operations* *October 2001*

1. 8
2.  $12/7$  or  $1\ 5/7$
3. 1

## *Arithmetic with \* Operations* *October 2002*

1. 0
2. 20,112 or  $20,112_7$  or 20112
3.  $1/2$

***Arithmetic with \* Operations***  
***October 2003***

1. 42
2. 5
3. 200 or \$200

***Arithmetic with \* Operations***  
***October 2004***

1. -7
2. 440
3. 1

***Arithmetic with \* Operations***  
***October 2005***

1. 11.01 or \$11.01
2. 0
3.  $a = 16$ ,  $b =$  any number

***Arithmetic with \* Operations***  
***October 2006***

1. 26
2.  $a = \pm b$
3. 25

***Arithmetic with \* Operations***  
***October 2007***

1. 2
2.  $-4/3$
3. \$45

***Inequalities and Absolute Value  
October 1988***

1.  $-2 < x < 1$
2. 67
3.  $x < -2$  or  $0 < x < 2$  or  $x > 4$

***Inequalities and Absolute Value  
October 1989***

1.  $10/7$  or  $-2/3$
2.  $\{-4, -3, 1, 2\}$
3.  $N = 0.0401$

***Inequalities and Absolute Value  
October 1991***

- 1.
- 2.
- 3.

***Inequalities and Absolute Value  
October 1992***

- 1.
- 2.
- 3.

***Inequalities and Absolute Value  
October 1993***

1.  $2$  or  $x = 2$
2.  $x < 3$ , but  $x \neq 1$  or  $0$
3.  $-1 < x < 2$  or  $3 < x < 6$

***Inequalities and Absolute Value  
October 1994***

1.  $w = -2, 1,$  or  $-1$
2.  $x < -2$  or  $0 < x < 4/3$  or  $x > 3$
3.  $0 < x \leq \frac{7}{6}$  or  $x \geq \frac{19}{6}$

***Inequalities and Absolute Value  
October 1995***

1. -3
2. 9
3.  $x < -3$  or  $-1 < x \leq 3 \frac{1}{2}$

***Inequalities and Absolute Value  
October 1996***

1.  $x < 1$
2. 2, 3, 4
3.  $-4 < x < 0$  or  $x > 1$

***Inequalities and Absolute Value  
October 1997***

1.  $x \leq -1 \frac{3}{4}$
2.  $-3 + \sqrt{14} \leq x \leq 1$  or  $x \geq 5$
3.  $a = 3, b = -12, c = 15$

***Inequalities and Absolute Value  
October 1998***

1.  $x > 2$
2. 7
3.  $\{-2, 0, 2, 4\}$

***Inequalities and Absolute Value  
October 1999***

1.  $16 < y^2 + 4x < 69$
2.  $x \leq -2$  or  $x \geq 2$
3.  $-2 < x < 0$  or  $x \geq \frac{5}{3}$

***Inequalities and Absolute Value  
October 2000***

1. -10
2.  $4 < x \leq 12$
3.  $\{-1, 0, 1, 2, 3\}$

***Inequalities and Absolute Value  
October 2001***

1.  $x \geq 2$
2.  $0 < x < 5$
3.  $\pm 2$  or 2, -2

***Inequalities and Absolute Value  
October 2002***

1.  $x < 3$
2.  $x = 3$
3. 4

***Inequalities and Absolute Value  
October 2003***

1. 10
2.  $x \leq \frac{1}{5}$  or  $x \geq 3$
3.  $1 < x < 2$  or  $x > 4$

***Inequalities and Absolute Value  
October 2004***

1.  $0 \leq y \leq 18$
2.  $m < 0$  or  $m > 2$
3.  $x \geq \frac{1}{2}$

***Inequalities and Absolute Value  
October 2005***

1. -3 or  $-\frac{1}{5}$
2.  $x < -1$  or  $0 < x < 2$
3.  $x < 0$  or  $0 < x < 2$   
or  
 $x < 2$ , but  $x \neq 0$

***Inequalities and Absolute Value  
October 2006***

1. 2
2. 2
3.  $|x - 2| + |y| \leq 1$

***Inequalities and Absolute Value  
October 2007***

1. 1
2.  $x \geq -\frac{3}{8}$
3.  $4 < x < 5\frac{1}{3}$

**Matrices, Determinants, and  
Systems of Equations  
October 1988**

1. 
$$\begin{bmatrix} 13 & 26 & 4 \\ 15 & 30 & -4 \\ 23 & 46 & 13 \\ 27 & 54 & 18 \end{bmatrix}$$

2.  $x = -2$  or  $x = 1$

3.  $n = 2$

**Matrices, Determinants, and  
Systems of Equations  
October 1989**

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

2. 
$$\begin{bmatrix} 10 & -1 & 12 \\ -1 & 5 & -4 \\ 12 & -4 & 16 \end{bmatrix}$$

3. 555

**Matrices, Determinants, and  
Systems of Equations  
October 1991**

1.

2.

3.

**Matrices, Determinants, and  
Systems of Equations  
October 1992**

1.

2.

3.

**Matrices, Determinants, and  
Systems of Equations  
October 1993**

1. 
$$\begin{bmatrix} 4/3 & 2/3 \\ 0 & 1/3 \\ 1 & 1/3 \end{bmatrix}$$

2. 20 or  $-3 \frac{1}{3}$

3. -2

**Matrices, Determinants, and  
Systems of Equations  
December 1993**

1. 91

2. 40 mph, 3900mi

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

**Matrices, Determinants, and  
Systems of Equations  
October 1994**

1. 
$$\begin{bmatrix} -6 & 0 \\ -12 & 6 \end{bmatrix}$$

2.  $\left(\frac{1}{2}, -\frac{1}{5}\right)$

3. -5

**Matrices, Determinants, and  
Systems of Equations  
October 1995**

1. 
$$\begin{bmatrix} 32 & 1 \\ 22 & -12 \end{bmatrix}$$

2. 59¢/ lb

3. 3

**Matrices, Determinants, and  
Systems of Equations  
October 1996**

1. 16
2. 22
3.  $\begin{bmatrix} 6 & -4 & 2/3 \\ 13 & -10 & 1/3 \end{bmatrix}$

**Matrices, Determinants, and  
Systems of Equations  
October 1997**

1.  $\begin{array}{|c|c|} \hline 1 & 5 \\ \hline 2 & 6 \\ \hline \end{array}$   
 $\begin{array}{|c|c|} \hline 1 & 2 \\ \hline 2 & -1 \\ \hline \end{array}$
2.  $\begin{bmatrix} 11 & 10 & 13 \\ 2 & 1 & 1 \\ 2 & 4 & 6 \end{bmatrix}$

3. 2

**Matrices, Determinants, and  
Systems of Equations  
October 1998**

1. 5
2. 8
3. 1 or -1

**Matrices, Determinants, and  
Systems of Equations  
October 1999**

1. 2
2. 860
3. 3

**Matrices, Determinants, and  
Systems of Equations  
October 2000**

1.  $-\frac{4}{35}$
2. 3
3. 80 or 80 steps

**Matrices, Determinants, and  
Systems of Equations  
October 2001**

- 1.
- 2.
- 3.

**Matrices, Determinants, and  
Systems of Equations  
October 2002**

1. -2
2. 5
3. 1

**Matrices, Determinants, and  
Systems of Equations  
October 2003**

1. 90
2. 12
3.  $a = \frac{1}{2}, b = \frac{1}{3}$

**Matrices, Determinants, and  
Systems of Equations  
October 2004**

1. (2, -4)
2. (4, -1)
3. 576

***Matrices, Determinants, and  
Systems of Equations  
October 2005***

- 1.
- 2.
- 3.

***Matrices, Determinants, and  
Systems of Equations  
October 2006***

1. 0
2. 70 in.
3. 6

***Matrices, Determinants, and  
Systems of Equations  
October 2007***

1. -40
2.  $\begin{bmatrix} 28 & 10 \\ 38 & -23 \end{bmatrix}$
3. (3, -4, 2)

***Geometric Similarities  
October 1991***

- 1.
- 2.
- 3.

***Geometric Similarities  
October 1993***

- 1.
- 2.
- 3.

***Geometric Similarities  
October 1994***

1.  $8\frac{8}{9}$
2. 216
3.  $\frac{5\sqrt{13}}{3}$

***Geometric Similarities  
October 1995***

1. 672
2.  $26\frac{2}{3}$
3. 7

***Geometric Similarities  
October 1996***

1.  $8\frac{4}{7}$
2. 441
3.  $18+10\sqrt{3}$

***Geometric Similarities  
October 1997***

1. 48
2. 15
3. 42

***Geometric Similarities  
October 1998***

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

***Geometric Similarities  
October 1999***

1. 40
2. 72
3. 108

***Geometric Similarities  
October 2000***

1. 24
2. 4 : 1
3. 27

***Geometric Similarities  
October 2001***

- 1.
- 2.
- 3.

***Geometric Similarities  
October 2002***

1. 45
2.  $\frac{400}{x}$
- 3.

***Geometric Similarities  
October 2003***

1. 4'8"
2. 211
3. 44.33

***Geometric Similarities***

***October 2004***

1. 140 or  $140^\circ$

2. 4 to 9 or 4:9 or  $\frac{4}{9}$

3. 6 or 6 ft

***Geometric Similarities***

***October 2005***

1.

2.

3.

***Geometric Similarities***

***October 2006***

1. 33

2.  $70\frac{2}{17}$

3.  $\frac{128\sqrt{3}}{2}$

***Geometric Similarities***

***October 2007***

1. 26

2. 13

3. 324

***Number Theory  
October 1988***

1.  $d = 9$
2. 722
3. 27720

***Number Theory  
October 1989***

1. 8
2. {13, 31, 17, 71}
3. 344

***Number Theory  
October 1991***

- 1.
- 2.
- 3.

***Number Theory  
October 1992***

- 1.
- 2.
- 3.

***Number Theory  
October 1993***

1. 8 or 7
2. 7
3. 700

***Number Theory  
October 1994***

1. 899
2. 555
3. 53

***Number Theory  
October 1995***

1. 702
2. 15
3. 26

***Number Theory  
October 1996***

1. 35
2. 31
3. 169

***Number Theory  
October 1997***

1. 68
2. 257
3. 125

***Number Theory  
October 1998***

1. 2
2.  $20_{17}$
3. 4

***Number Theory  
October 1999***

1. 12
2. 23
3. 6

***Number Theory  
October 2000***

1. 4
2. 14
3. 36

***Number Theory  
October 2001***

- 1.
- 2.
- 3.

***Number Theory  
October 2002***

1. 24
2. 21,840
3. 240

***Number Theory  
October 2003***

1. 336
2. 419 454 489
3. 132

***Number Theory  
October 2004***

1. 27
2. 11
3. 1, 3, 9, 27

***Number Theory  
October 2005***

- 1.
- 2.
- 3.

***Number Theory  
October 2006***

1. 20
2. 381654729
3. 41

***Number Theory  
October 2007***

1. 304
2.  $44,230_8$
3. 503 and 965