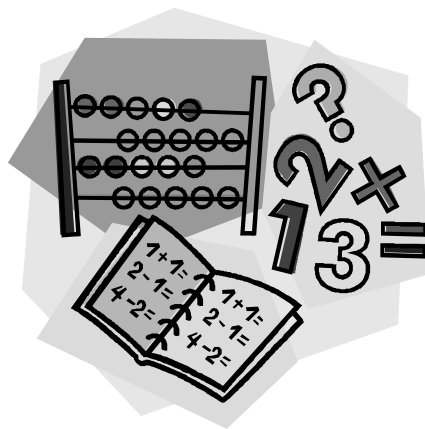




Answer Keys
For Elementary Level
and
Secondary Level
Math diagnostic test

Units 1 - 96



Math Academic Placement Test Answer Sheet

Unit 1

- 1-5 1 to 5
6. 3
7. 4
8. 5

Unit 2

- 1-5 6 to 10
6. 9
7. 8
8. 7

Unit 3 & 4

1. 6
2. 9
3. 5
4. 6
5. 3
6. 7
7. 9
8. 5
9. 8

Unit 5 & 6

1. 2
2. 1
3. 1
4. 4
5. 7
6. 3
7. 5
8. 2
9. 5

Unit 7

1. 1-20

Unit 8

1. 13
2. 12
3. 16
4. 14
5. 15
6. 10
7. 11

8. 12
9. 10

Unit 9

1. 4
2. 8
3. 7
4. 7
5. 7
6. 8
7. 9
8. 9
9. 9

Unit 10-12

1. 1 o'clock
2. 3 o'clock
3. 5 o'clock
4. 8 o'clock
5. 12 o'clock
- 6-15. Check work
16. 30 cents
17. 3 cents
18. 19. Check work

Unit 13

1. 9
2. 79
3. 57
4. 28
5. 19
6. 4
7. 16
8. 6
9. 9
10. $2+5+2=9$
11. $10-3=7$
12. $7-1=6$

Unit 14

1. 17
2. 13
3. 18
4. 17
5. 17

6. 39
7. 58
8. 50
9. 36
10. 29
11. $5+3+6=14$

Unit 15

1. Check work
2. 80
3. 60
4. 46
5. 29
6. 19
7. 20
8. 50
9. 22
10. 20

Unit 16

1. 47
2. 50
3. 98
4. 30
5. 127
6. 12
7. 52
8. 71
9. 51
10. 10
11. 32
12. 24
13. 87

Unit 17

1. 348
2. 749
3. 997
4. 728
5. 413
6. $176+224=400$
7. 211
8. 522
9. 710
10. 511
11. 104

Unit 18

1. $314-226=88$
2. 596
3. 974
4. 739
5. 587
6. 800
7. $100+196=296$
8. $233-121=112$
9. 306
10. 351
11. 161
12. 241
13. 400

Unit 19 & 20

1. $46+9= 55$
2. 50
3. 33
4. 20
5. 23
6. 63
7. 51
8. 46
9. 19

Unit 21

1. 53
2. 38
3. 29
4. 55

Unit 22

1. 30 cents
2. 2 cents
3. 75 cents
4. 411
5. 286
6. 549
7. 413
8. 288
9. 551

Unit 23 & 24

As indicated

Unit 25

1. $28-13 = 15$
2. 30
3. 40
4. 51
5. 31

Unit 26-28

1. 62
2. 91
3. 90
4. 66
5. 38
6. 85
7. 72
8. 119
9. 116
10. 4,427
11. 5,579
12. 4,995
13. 6,568
14. 9,257
15. 7,595
16. 3,757
17. 8
18. 18
19. 10
20. 14
21. 9
22. 18
23. 24
24. 27

Unit 29

1. 990
2. 746
3. 918
4. 909
5. 558
6. 242
7. 407
8. 714
9. 24
10. 32
11. 0
12. 16
13. 28
14. 36

15. 20

16. 14

17. 4

18. 9

19. 12

20. 8

Unit 30

1. 23
2. 22
3. 197
4. 209
5. 296
6. 152
7. 198
8. 192
9. 45
10. 15
11. 35
12. 30

Units 31

1. 621
2. 425
3. 298
4. 278
5. II
6. III
7. I
8. V
9. IV
10. 2,4,6,8,10,12,14,16,18,20
11. 5,10,15,20,25,30,35,40, 45,50
12. 951
13. 922
14. 951
15. 128
16. 385
17. 441
18. 609
19. 28
20. 47
21. 118
22. 178
23. 12
24. 36
25. 42

- 26.54
- 27.18
- 28.24
- 29.48
- 30.6

Unit 32

- 1. 35
- 2. 28
- 3. 54
- 4. 63
- 5. 21
- 6. 7
- 7. 42
- 8. 14
- 9. 36
- 10. 56
- 11. 28
- 12. 49

Unit 33

- 1. 56
- 2. 8
- 3. 63
- 4. 16
- 5. 48
- 6. 24
- 7. 24
- 8. 64
- 9. 40
- 10. 42
- 11. 32
- 12. 72

Unit 34

- 1. 36
- 2. 9
- 3. 54
- 4. 56
- 5. 18
- 6. 72
- 7. 81
- 8. 64
- 9. 27
- 10. 63
- 11. 45
- 12. 12

Unit 35

- 1. 10:00
- 2. 6:15
- 3. 3:00
- 4. 5:45

Unit 36

- 1. 4
- 2. 8
- 3. 10
- 4. 22
- 5. 22
- 6. 44
- 7. \$2.02
- 8. Pint
- 9. Quart
- 10. Gallon
- 11. 2
- 12. 3
- 13. 1

Units 36 & 37

- 1. 60
- 2. 10
- 3. 30
- 4. 20
- 5. 90
- 6. 80
- 7. 70
- 8. 50
- 9. 40

Unit 38

- 1. 11
- 2. 55
- 3. 33
- 4. 44
- 5. 22
- 6. 99
- 7. 88
- 8. 44
- 9. 9
- 10. 5
- 11. 2
- 12. 3
- 13. 9
- 14. 8
- 15. 4

- 16. 6
- 17. 21

Unit 39

- 1. 7
- 2. 3
- 3. 4
- 4. 1
- 5. 8
- 6. 6
- 7. 2
- 8. 9
- 9. 5

Unit 40

- 1. 90
- 2. 81
- 3. 64
- 4. 98
- 5. 3
- 6. 8
- 7. 5
- 8. 4
- 9. 6
- 10. 1
- 11. 7
- 12. 9
- 13. 2
- 14. 20

Unit 41

- 1. XVI
- 2. XIX
- 3. XV
- 4. XIII
- 5. 7
- 6. 1
- 7. 5
- 8. 3
- 9. 8
- 10. 9
- 11. 4
- 12. 2
- 13. 6

Unit 42

- 1. 864
- 2. 1034
- 3. 182

4. 564
5. 3
6. 1
7. 9
8. 2
9. 4
10. 5
11. 7
12. 6
13. 8

Unit 43

1. 1
2. 3
3. 2
4. 6
5. 5
6. 9
7. 7
8. 4
9. 8

Unit 44

1. 1,908
2. 660
3. 370
4. 2,898
5. 2
6. 3
7. 1
8. 5
9. 8
10. 7
11. 4
12. 9
13. 6
14. 9R1
15. 2R1
16. 4R1

Unit 45

1. 1,120
2. 820
3. 950
4. 1,440
5. 1
6. 3
7. 2

8. 6
9. 7
10. 4
11. 8
12. 5
13. 9

Unit 46

1. $\frac{1}{3}$
2. $\frac{1}{8}$
3. $\frac{1}{2}$
4. $\frac{1}{6}$

Unit 47

1. 12
2. 14
3. 11
4. $\frac{2}{3}$
5. $\frac{7}{8}$
6. $\frac{5}{6}$
7. $\frac{1}{6}$
8. $\frac{3}{8}$
9. $\frac{1}{4}$

Unit 48

1. \$1.32
2. \$1.46
3. \$0.08
4. \$0.02
5. \$0.03
6. nine
7. four
8. three
9. six

Unit 49

1. 1
2. 2
3. 4

Unit 50

1. 10847
2. 24586
3. 31049
4. 39754
5. 3
6. 9
7. 7
8. 4th

9. first
10. 7th
11. Second
12. $\frac{1}{2}$
13. $\frac{2}{6}$
14. $\frac{4}{10}$
15. $\frac{2}{8}$

Unit 51

1. >
2. >
3. <
4. $12\frac{1}{7}$
5. $13\frac{2}{3}$
6. $21\frac{1}{4}$
7. $15\frac{1}{5}$
8. C
9. C
10. B
11. H
12. G
13. A
14. C
15. $\frac{1}{2}$
16. $\frac{1}{2}$
17. $\frac{1}{4}$
18. 1,2,3,6
19. 11
20. 1

Unit 52

1. 90
2. 640
3. 1580
4. 31,518
5. 8,732
6. 14,805
7. 40,369
8. 313
9. 132 R3
10. 654 R2
11. 1,009 R2
12. $\frac{7}{10}$
13. $\frac{1}{3}$
14. $\frac{3}{16}$
15. $\frac{6}{13}$
16. 12
17. 20

- 18.36
19. $\frac{3}{15}$
20. $\frac{5}{15}$
21. $\frac{7}{15}$

Unit 53

1. =
2. <
3. =
4. >
5. >
6. <
7. >
8. 31,800
9. 4,250
10. 16,520
11. 350,000
12. 30
13. 60
14. 80
15. 90,936
16. 227,908
17. 54,720
18. 424,143

Unit 54

1. 12.09
2. .69
3. .9
4. 556.03
5. 100
6. 200
7. 4700
8. 500
9. 4
10. 3
11. 11
12. 9
13. 4
14. 5
15. 2
16. $3\frac{5}{9}$

Unit 55

1. $6\frac{1}{2}$
2. 5
3. 6

4. $12\frac{2}{3}$
5. $\frac{1}{4}$
6. $\frac{5}{9}$
7. $\frac{1}{2}$
8. $\frac{3}{4}$
9. $\frac{5}{16}$

10. $\frac{8}{25}$
11. $\frac{5}{12}$
12. 9 R13
13. 5R19
14. 3R13
15. 8R13
16. 178,920
17. 283,150
18. 115,560
19. 323,050
20. 927.96
21. 344.12
22. 80.77
23. 377.75
24. 47%
25. 8%
26. 20%
27. 18%
28. 48 Sq m
29. 64 Sq m
30. 80 Sq mt

Unit 56

1. 51.047
2. .862
3. 3.008
4. >
5. =
6. <
7. CCCXLIX
8. LXXV
9. CCCXCIX
10. 15 R 25
11. 66R43
12. 59
13. 670
14. 84
15. 34
16. 66,038
17. 177,510
18. 213,675
19. $2\frac{1}{2}$

20. $13\frac{3}{7}$
21. $4\frac{4}{7}$
22. $\frac{3}{4}$
23. $\frac{1}{4}$
24. $\frac{1}{18}$
25. H
26. E
27. L
28. A
29. I
30. B
31. M
32. C
33. K
34. G
35. D
36. F
37. J

Unit 57

1. B
2. A
3. C
4. B
5. C
6. A
7. $11\frac{1}{19}$
8. $10\frac{1}{5}$
9. $5\frac{1}{4}$
10. $8\frac{1}{5}$
11. 9
12. 28
13. 7
14. 3
15. 0
16. 2
17. 5
18. Solid
19. Plane
20. Plane
21. Sphere
22. Cube
23. Cone

Unit 58

1. 40 R38
2. 23 R54
3. 37R32

4. 1.82
5. 17.85
6. 12.992
7. B
8. C
9. A
10. $9\frac{1}{6}$
11. $4\frac{1}{3}$
12. $4\frac{1}{6}$

Unit 59

1. 21.34
2. 1.3
3. 2.671
4. 74 R16
5. 88 R 8
6. 60 R 18
7. 26.1
8. 56.44
9. 14.48
10. $2\frac{7}{10}$
11. $7\frac{7}{9}$
12. $\frac{3}{14}$
13. <
14. >
15. <
16. <
17. 35
18. 48
19. 9
20. 4
21. a.m.
22. p.m.
23. p.m.
24. p.m.

Unit 60

1. \$10
2. \$ 5
3. \$8
4. \$6
5. D
6. E
7. A
8. G
9. B
10. H

11. F
12. C

Unit 61

1. 9,802
2. 1,074
3. 48,972
4. 249 r5
5. $\frac{5}{9}$
6. $\frac{6}{7}$
7. $\frac{4}{5}$
8. $\frac{6}{15}$

Unit 62

1. $\frac{1}{8}$
2. $\frac{1}{5}$
3. $\frac{1}{3}$
4. $\frac{5}{12}$
5. $\frac{2}{3}$
6. $\frac{4}{9}$

Unit 63

1. 58
2. 107 r6
3. 2,736 r173
4. $\frac{1}{2}$
5. $\frac{8}{15}$
6. $\frac{1}{6}$

Unit 64

1. $\frac{2}{5}$
2. $\frac{1}{64}$
3. $\frac{6}{7}$
4. $1\frac{2}{3}$
5. $83\frac{49}{197}$
6. $76\frac{136}{189}$
7. Thirty one thousand
Sixty two
8. 41,802

Unit 65

1. 20 LCD
2. 144 LCD
3. 8 LCD
4. 48 LCD
5. 8 LCD
6. 10 LCD
7. 4

8. 1

Unit 66

1. 2
2. $17\frac{1}{2}$
3. $\frac{3}{8}$
4. $\frac{5}{12}$
5. $1\frac{1}{4}$
6. $7\frac{5}{8}$

Unit 67

1. $\frac{1}{5}$
2. $\frac{6}{25}$
3. $\frac{341}{1000}$
4. .14
5. .01
6. .017
7. eighteen and
seven thousandths
8. 16.42

Unit 68

1. $\frac{5}{6}$
2. 30.646
3. 7.692
4. 5029.69
5. 62.08

Unit 69

1. CDXLIV
2. CMLXII
3. DCCLXXXVIII
4. 3.17 (3.1698)
5. .29 (.288)
6. 2.35
7. 3.58 (3.578)

Unit 70

1. 9.57
2. 5,700
3. 34.8
4. $\frac{15}{32}$
5. $1\frac{5}{16}$
6. $22\frac{1}{2}$

Unit 71

1. 2.8m
2. 12,000 mm

- 4.95 km
- 99,000 ml
- 20,300 g
- 1,000 m
- 100 cm

Unit 72

- 1, 1
- 2, 2
- 3, 5
- 20 lb 9 oz
- 7 ft 5 in
- 15 ft 9 in
- 10 lb 5 oz
- 13 lb 4 oz

Unit 73

- 900,000,400,008
- forty billion, fifty two million, six hundred eighteen thousand twelve.

Unit 74

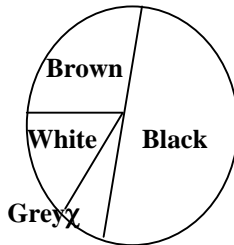
- 2.1
- 2.13
- 2.134
- .6
- .55
- .551
- $\frac{3}{4}$
- $\frac{3}{7}$

Unit 75

- $\frac{3}{4}$
- $\frac{4}{25}$
- $\frac{9}{10}$
- 20%
- 70%
- 11.25
- 40
- 36
- 125
- 70%
- 40%

Unit 76

- rrrrrryyyggggggbbboo
- $\frac{2}{20} = \frac{1}{10}$
- $\frac{1}{19}$
- $\frac{5}{20} = \frac{1}{4}$
- 1,218
- X̄CCLX
- 912
- DRAW BY HAND



Unit 77

- .05
- \$1,117.50
- \$21,232.50
- \$45.00 loss
- 2.3%
- \$900.00
- \$315.00
- \$1,785.00

Unit 78

- 22.1
- .4

Unit 79

- \$153.00
- \$60.75
- \$360.00
- \$2,360.00
- \$112.00
- \$912.00
- 3 dimes, or one quarter and one nickel, or any combination to equal 30 cents

Unit 80

- 7.5 kg
- 35,000 cm
- 1 rod
- 1000 m
- 147 oz
- 113 F
- 100 C

Unit 81

- without stopping
- obtuse angle
- $\angle DOE$ $\angle AOB$ $\angle BOC$ $\angle COD$
- $\angle BOE$
- $50^\circ 33' 15''$
- $31^\circ 56' 44''$

Unit 82

- 30 degrees
- obtuse
- 60 degrees
- right
- $\angle 7$
- $\angle 1$
- $12 \frac{1}{6}$

Unit 83

- C=44units
- A=154
- As=108 sq. units
- V = 72 cubic units
- 29.3 units
- 42 sq. units

Unit 84

1. unknown number
2. finite set
3. set
4. $\not\subset$
5. \notin
6. \in
7. 1228
8. 103

Unit 85

1. 250 m/hr
2. 45 m/hr
3. 150 m/hr
4. 463,008 m

Unit 86

1. $3\frac{3}{4}$
2. 125
3. $18\frac{1}{4}$
4. 38
5. $6\frac{1}{12}$
6. 11

Unit 87

1. $x-15=6$
2. $x=21$
3. $3x + 18 = 60$
4. $x = 14$
5. $w = v/lh$
6. $d=c/\pi$
7. $l=a/w$
8. $w=a/l$

Unit 88

1. $A = \frac{1}{2}bh$
2. $V = \frac{1}{2}bhl$
3. $V = \frac{4}{3}\pi r^3$
4. rectangular prism
5. cone
6. sphere
7. $2,145\frac{11}{21}$ cubic units
8. 1,000,000 cubic units

Unit 89

1. 2,13
2. 2, 3, 7
3. 3, 7
4. 28
5. 27
6. 56
7. 48
8. $\frac{5}{6}$
9. 74
10. .36009

Unit 90

1. $\pm y$
2. ± 9
3. ± 7
4. 36
5. 144
6. 8.062
7. 14.142
8. right angle

Unit 91

1. \$65.00
2. \$27.00
3. \$208,145
4. \$225.99
5. \$169.87
6. \$ 30.70
7. \$ 124.58

Unit 92

1. \$34.00
2. \$42.08
3. \$5,057.92
4. \$87.50
5. \$125.48
6. \$13,874.52
7. 5.0%
8. 4.4%

Unit 93

1. 4.62%
2. 18.7%
3. 8.45%
4. 628.80
5. 655.20

Unit 94

1. \$18.69
2. \$12.46
3. \$8.01
4. \$72.32
5. \$32.34
6. \$104.66
7. \$68.53
8. \$19.52
9. \$88.05
10. \$84.46
11. \$26.02
12. \$110.48

Unit 95

1. one tenth or $\frac{1}{10}$
2. one thousandth or $\frac{1}{1000}$
3. ten times or 10x
4. one hundred times or 100x
5. 1,419.36
6. 5.4
7. 250

Unit 96

1. +33.43
2. -329.79
3. +9.197
4. -1,064
5. -.167
6. <
7. <
8. >
9. -26
10. -.28 or $-\frac{28}{100}$