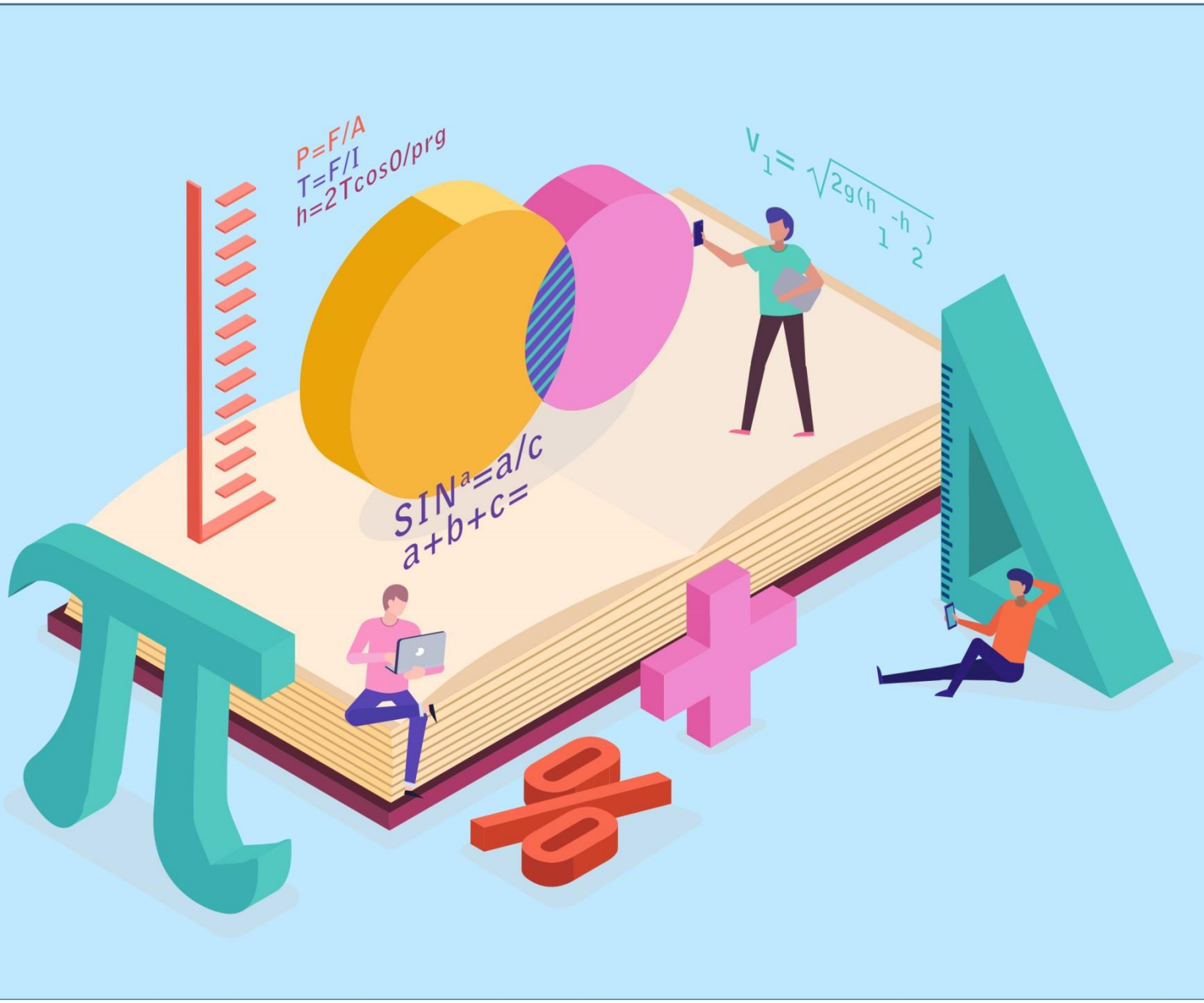

QUANTITATIVE APTITUDE

SIMPLIFICATION

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Directions (1 - 50): What value should come in the place of question mark (?) in the following questions?

1) 124 % of 3250 + (3/8) of 5712 = $(?)^2$+ 243

- **A.** 83
- **B.** 73
- **C.** 77
- **D.** 87
- **E.** None of these

2) ? % of 600 = 3285 - (44^2– 19^2) × 19 ÷ 399

- **A.** 535
- **B.** 610
- **C.** 475
- **D.** 650
- **E.** None of these

3) 72 × 6 × (125 - 97) + 1254 ÷ 3 ÷ 11 – 66^2=?

- **A.** 6152
- **B.** 6524
- **C.** 7196
- **D.** 7778
- **E.** None of these

4) $\sqrt[3]{13824}$ + $\sqrt[3]{74088}$ % of 250 - $\sqrt[3]{3375}$ % of 600=?

- **A.** 15
- **B.** 9
- **C.** 21
- **D.** 18
- **E.** None of these

5) (5/17) of (408/55) of (165/240) of 6000 = 25 % of?

- **A.** 36000
- **B.** 32000
- **C.** 45000
- **D.** 41000
- **E.** None of these

6) √[(1573 ÷ 13) × (275 ÷ 55) + 5^3 - 1] = 1672 ÷11 - $?^3$

A. 8
B. 6
C. 5
D. 7
E. None of these

7) 8 4/7 + 9 ¾ - 3 5/8 -? = 6 29/56

A. 8 5/28
B. 6 13/25
C. 7 19/28
D. 5 3/4
E. None of these

8) (42^2– 18^2) × 24 ÷ 128 +? % of 1800 = 1080

A. 60
B. 75
C. 45
D. 50
E. None of these

9) $(7 \times 7)^4 \div (343 \div 7)^2 \times (343 \times 7)^2 = (7)^{?+5}$

A. 11
B. 9
C. 13
D. 7
E. None of these

10) 114 % of 1250 + (4/7) of 5712 = $(?)^2$ + 65

A. 84
B. 96
C. 72
D. 68
E. None of these

11) (28 × 9 + 54 × 3 + 12 × 11) ÷ (142- √961 +17) =?

A. 6
B. 3
C. 5
D. 8
E. 7

12) (3/7) of 245 × 135 ÷ 15 -? = 528 ÷ 3 + 217

A. 624
B. 552
C. 786
D. 678
E. 580

13) 465 × 7 + 12.5 % of 658 + 876.75 =?

A. 4214
B. 4894
C. 4564
D. 4874
E. None of these

14) (550 % of 250) ÷ 275 + 45 % of 780 =?

A. 476
B. 396
C. 486
D. 356
E. None of these

15) 378.35 + 478 ÷ 12.5 + 456.41 =?

A. 873
B. 882
C. 793
D. 763
E. None of these

16) √571536 ÷ 42 ×? = 5850 + 126

A. 222
B. 336
C. 376
D. 332
E. None of these

17) (5926 – 6729 + 7498 – 3719 - 2937) × √11449=?

A. 4173
B. 3973
C. 5173
D. 6183
E. None of thes

18) 0.3 + 3.3 + 33.33 + 333.333 + 3.73 + 33.007=?

A. 408
B. 409
C. 407
D. 405
E. None of these

19) √625 × √6241 – 768 × 3 + √15129 + 106 × 2=?

A. 10
B. 16
C. 9
D. 6
E. None of these

20) 37.5 % of 80 % of 730 + 160 % of 250 -? =120 % of 400

A. 129
B. 139
C. 149
D. 159
E. None of these

21) $8^7 \times 2^6 \div 8^{2.4} \times 8^{1.4} = 8^?$

A. 9
B. 8
C. 6
D. 4
E. None of these

22) 23 × 15 – 60 + (? ÷ 31) = 292

A. 220
B. 217
C. 218
D. 186
E. 229

23) 3 3/4 + 4 2/5 – 3 1/8 + 6 2/5 =?

A. 11 17/40
B. 9 17/40
C. 10 17/40
D. 13 17/40
E. None of these

24) √841 × 3 + 120 % of 450 – 180 % of 780 + 60 % of 1800 =?

A. 303
B. 310
C. 308
D. 290
E. None of these

25) 25 % of 780 + √3249 × 12 + 865 =?

A. 1844
B. 1644
C. 1744
D. 1455
E. None of these

26) √16384 ÷ 4 × 16 =? - 18312 ÷ 12 + 14^2

A. 1678
B. 1842
C. 1426
D. 2154
E. None of these

27) (7/9) of 4068 + 77 % of 1200 = $(?)^2$– (128 ÷16)

A. 64
B. 62
C. 58
D. 56
E. None of these

28) $(8 \times 8)^5 \div (512 \div 8)^2 \times (8 \times 64)^3 = (8)^{?+5}$

A. 12
B. 8
C. 6
D. 10
E. None of these

29) ? % of (75 × 4 – 150) = 420 + 75^2

A. 4280
B. 4520
C. 4030
D. 5060
E. None of these

30) (7/84) of (12/156) of 4680 = 45 -?

A. 15
B. 20
C. 25
D. 30
E. None of these

31) 34 % of 4200 – 510 ÷? + 72 % of 400 = 1713

A. 280
B. 320
C. 170
D. 120
E. None of these

32) (5/8) of (16/9) of (18/5) of 65 % of 800 =?

A. 2080
B. 2260
C. 1820
D. 1640
E. None of these

33) (11340 ÷ 9) + 85 % of 1600 – (5/7) of 2100=? – 11^2

A. 1364
B. 1057
C. 1125
D. 1241
E. None of these

34) 5 ¾ + 6 ½ - 3 3/8 + 4 5/8 =? + 1 ½

A. 15 ¾
B. 12
C. 16
D. 17 ½
E. None of these

35) 30 % of 5400 + 68 % of 4100 =? – 2168

A. 6576
B. 7154
C. 6243
D. 5812
E. None of these

36) 2370 ÷ 15 × 10 + 33 % of 1800 – (4/7) of 2170 =? + 44

A. 560
B. 670
C. 890
D. 720
E. None of these

37) ? % of 500 – 8 % of 3000 – (3/8) of (2/3) of 72 = 23

A. 56.2
B. 45.8
C. 51.4
D. 42.6
E. None of these

38) $24^2 \div 4^2 \times 120 \div 10 = ? - 552 \div 4$

A. 620
B. 645
C. 535
D. 570
E. None of these

39) $\sqrt[3]{97336}$ + 48 % of 1050 – (2/3) of 726 =?

A. 75
B. 66
C. 52
D. 83
E. None of these

40) 11 5/8 + 4 7/16 – 9 3/8 + 12 3/16 =? – 3 7/8

A. 22 3/4
B. 19 5/8
C. 21 ¼
D. 18 ½
E. None of these

41) ? % of 800 – 12 % of 2800 – (4/9) of (3/8) of 72 = 24

A. 75.5
B. 58.5
C. 67.5
D. 46.5
E. None of these

42) 45 × 288 ÷ √1024 + 90 = ?^{3}+ 122+ √64

A. 7
B. 12
C. 23
D. 18
E. None of these

43) (5/12) of 6720 + 28 % of 700 =? + 1562

A. 1578
B. 1434
C. 1352
D. 1696
E. None of these

44) 80 + 426 ÷ 6 – 144 = $\sqrt[3]{}$?

A. 729
B. 216
C. 343
D. 512
E. None of these

45) $\sqrt[3]{}$32768 + 36 % of 1050 – (1/7) of 875 =?

A. 285
B. 325
C. 450
D. 230
E. None of these

46) √33124 ÷ 13 × 8 =? - 16005 ÷ 15

A. 1267
B. 1352
C. 1488
D. 1179
E. None of these

47) 5 7/13 of 767 – 17^2=? + 561

A. 3398
B. 3526
C. 3672
D. 3124
E. None of these

48) $4^{?} \times \sqrt{576} = 48036 \div 12 + 2141$

A. 6
B. 5
C. 4
D. 7
E. None of these

49) $? \%$ of $(28 \times 9 - 72) = 350 + 35^2$

A. 750
B. 875
C. 925
D. 660
E. None of these

50) $?^3 - (3/11)$ of $(33/25)$ of $2925 = 278$

A. 12
B. 13
C. 11
D. 9
E. None of these

Answers and Explanation

1. Answer: C

Explanation: (124/100) * 3250 + (3/8) * 5712 = x^2+ 243

4030 + 2142 – 243 = x^2

X^2= 5929

x = 77

2. Answer: A

Explanation: (x/100) * 600 = 3285 – [(44 + 19) (44 – 19) × 19 ÷ 399]

6x = 3285 – [63 * 25 * 19/399]

6x = 3285 – 75

6x = 3210

x = (3210/6) = 535

3. Answer: D

Explanation: (72 * 6 * 28) + 1254 ÷ 3 ÷ 11 – 66^2 = x

12096 + 38 – 4356 = x

x = 7778

4. Answer: B

Explanation: 24 + 42 % of 250 - 15 % of 600 = x

24 – (42/100) * 250 + (15/100) * 600 = x

24 – 105 + 90 = x

x = 9

5. Answer: A

Explanation: (5/17) * (408/55) * (165/240) * 6000 = (25/100) *x

x = 36000

6. Answer: C

Explanation: √ [(1573/13) × (275/55) + 5^3 - 1] = (1672/11) – x^3

√ (121 × 5 + 125 - 1) = 152 – x^3

√729 = 152 – x^3 27 = 152 – x^3

x^3 = 152 – 27 = 125

x = 5

7. Answer: A

Explanation: 8 4/7 + 9 ¾ - 3 5/8 - 6 29/56 = x

x = (8 + 9 – 3 – 6) (4/7 + ¾ - 5/8 – 29/56)

x = 8 [(32 + 42 – 35 – 29)/56] = 8 (10/56)

x = 8 (5/28)

8. Answer: C

Explanation: (42 + 18) (42 – 18) × 24 ÷ 128 + (x/100) *1800 = 1080

[60 * 24 * 24/128] + 18x = 1080 (34560/128) + 18x = 1080

270 + 18x = 1080

18x = 1080 – 270

18x = 810

x = (810/18) = 45

9. Answer: A

Explanation: 7^8 ÷ $(49)^2$ × $(7^3 \times 7)^3$ = $(7)^{x+5}$

$7^8 \div 7^4 \times 7^{12} = (7)^{x+5}$

$7^{8-4+12} = 7^{x+5}$

$7^{16}\ 7^{x+5}$

16 = x + 5

x = 11

10. Answer: D

Explanation: (114/100) *1250 + (4/7) *5712 = x^2 + 65 1425 + 3264 – 65 = x^2

x^2 = 4624

x = 68

11. Answer: B

Explanation: (28 × 9 + 54 × 3 + 12 × 11) ÷ (14^2 - √961 + 17) = x

x = (252 + 162 + 132) ÷ (196 – 31 + 17) x = 546/182

x = 3

12. Answer: B

Explanation: (3/7) * 245 * (135/15) - x = (528/3) + 217

945 - x = 176 + 217

x = 945 – 176 – 217

x = 552

13. Answer: A

Explanation: 465 * 7 + 12.5 % of 658 + 876.75 = x

3255 + 82.25 + 876.75 = x

4214 = x

14. Answer: D

Explanation: (550 % of 250) ÷ 275 + 45 % of 780 = x

1375 ÷ 275 + 351 = x

5 + 351= x

356 = x

15. Answer: A

Explanation: 378.35 + 478 ÷ 12.5 + 456.41= x

378.35 + 38.24 + 456.41= x

873 = x

16. Answer: D

Explanation: √571536 ÷ 42 * x = 5850 + 126

18 * x = 5976

x = 332

17. Answer: A

Explanation: (5926 – 6729 + 7498 – 3719 - 2937) × √11449 = x

39 * 107 = x

4173 = x

18. Answer: C

Explanation: 0.3 + 3.3 + 33.33 + 333.333 + 3.73 + 33.007 = x

407 = x

19. Answer: D

Explanation: √625 × √6241 – 768 × 3 + √15129 + 106 × 2 = x 25 * 79 – 2304 + 123 + 212 = x

6 = x

20. Answer: B

Explanation: 37.5 % of 80 % of 730 + 160 % of 250 - x = 120

% of 400

219 + 400 - x = 480

139 = x

21. Answer: B

Explanation: $8^7 \times 2^6 \div 8^{2.4} \times 8^{1.4} = 8^x$

$8^7 * 8^2 \div 8^{2.4} * 8^{1.4} = 8^x$

$8^{7+2-2.4+1.4} = 8^x$

$8^8 = 8^x$

x = 8

22. Answer: B

Explanation: 23 × 15 – 60 + (x ÷ 31) = 292

285 + (x/31) = 292

x/31 = 7

x = 217

23. Answer: A

Explanation: 3 3/4 + 4 2/5 – 3 1/8 + 6 2/5 = x

(3 + 4 – 3 + 6) (3/4 + 2/5 - 1/8 + 2/5) = x 10 (57/40) = x

11(17/40) = x

24. Answer: A

Explanation: √841 × 3 + 120 % of 450 – 180 % of 780 + 60 % of 1800 = x

29 * 3 +120/100 * 450 – 180/100 * 780 + 60/100* 1800 = x

87 + 540 – 1404 + 1080 = x

303 = x

25. Answer: A

Explanation: 25 % of 780 + √3249 × 12 + 865 = x

195 + 684 + 865 = x

1744 = x

26. Answer: B

Explanation: √16384 ÷ 4 × 16 = x - 18312 ÷ 12 + 14^2 (128/4) *16 = x – (18312/12) + 196

512 = x – 1526 + 196

x = 512 + 1526 – 196 = 1842

27. Answer: A

Explanation: (7/9) *4068 + (77/100) *1200 = x^2 – (128/16) 3164 + 924 + 8 = x^2

x^2 = 4096

x = 64

28. Answer: D

Explanation: $(8^2)^5 \div (512/8)^2 \times (8 \times 8^2)^3 = (8)^{x+5}$

$8^{10} \div (64)^2 \times (8^3)^3 = (8)^{x+5}$

$8^{10} \div 8^4 \times 8^9 = (8)^{x+5}$

$8^{10-4+9} = 8^{x+5}$

$8^{15} = 8^{x+5}$

15 = x + 5

x = 10

29. Answer: D

Explanation: x % of (75 × 4 – 150) = 420 + 75^2

(x/100) *(300 – 150) = 420 + 5625

(x/100) *150 = 6045

3x/2 = 6045

x = 6045*(2/3) = 4030

30. Answer: D

Explanation: (7/84) *(12/156) *4680 = 45 – x30 = 45 – x

x = 45 – 30 = 15

31. Answer: C

Explanation: 34 % of 4200 – 510 ÷ x + 72 % of 400 = 1713

(34/100) *4200 – (510/x) + (72/100) *400 = 1713

1428 + 288 – 1713 = (510/x)

3 = (510/x)

x = 510/3 = 170

32. Answer: D

Explanation: (5/8) *(16/9) *(18/5) *(65/100) *800 = x

x = 2080

33. Answer: D

Explanation: (11340/9) + (85/100) *1600 – (5/7) *2100 = x - 121

1260 + 1360 – 1500 + 121 = x

x = 1241

34. Answer: B

Explanation: 5 ¾ + 6 ½ - 3 3/8 + 4 5/8 - 1 ½ = x

x = (5 + 6 – 3 + 4 – 1) + (3/4 + ½ - 3/8 + 5/8 – 1/2)

x = 11 + (6 + 4 – 3 + 5 – 4)/8 = 11 + (8/8) = 12

35. Answer: A

Explanation: 30 % of 5400 + 68 % of 4100 = x – 2168

(30/100) *5400 + (68/100) *4100 + 2168 = x

x = 1620 + 2788 + 2168 = 6576

36. Answer: C

Explanation: (2370/15) *10 + (33/100) *1800 – (4/7) *2170 = x + 44

1580 + 594 – 1240 – 44 = x

x = 890

37. Answer: A

Explanation: (x/100) *500 – (8/100) *3000 – (3/8) *(2/3) *72 = 23 5x – 240 – 18 = 23

5x = 23 + 240 + 18

5x = 281

x = 281/5 = 56.2

38. Answer: D

Explanation: $24^2 \div 4^2 \times 120 \div 10 = x - 552 \div 4$

$[(24*24)/ (4*4)] *(120/10) = x - (552/4)$

$432 + 138 = x$

$x = 570$

39. Answer: B

Explanation: $\sqrt[3]{97336} + 48\ \%$ of $1050 - (2/3)$ of $726 = x$

$x = 46 + (48/100) *1050 - (2/3) *726$

$x = 46 + 504 - 484 = 66$

40. Answer: A

Explanation: $11\ 5/8 + 4\ 7/16 - 9\ 3/8 + 12\ 3/16 + 3\ 7/8 = x$

$x = (11 + 4 - 9 + 12 + 3)\ (5/8 + 7/16 - 3/8 + 3/16 + 7/8)$

$x = 21\ 28/16 = 21\ 7/4 = 22\ 3/4$

41. Answer: D

Explanation: $(x/100) *800 - (12/100) *2800 - (4/9) *(3/8) * 72 = 24$

$8x - 336 - 12 = 24$

$8x = 24 + 336 + 12$

$8x = 372$

$x = 46.5$

42. Answer: A

Explanation: $45 \times 288 \div 32 + 90 = x^3 + 144 + 8$

$(45*288)/32 + 90 - 152 = x^3$

$x^3 = 405 + 90 – 152 = 343$

$x = 7$

43. Answer: B

Explanation: (5/12) *6720 + (28/100) *700 = x + 1562

$x = 2800 + 196 – 1562$

$x = 1434$

44. Answer: C

Explanation: $80 + (426/6) – 144 = \sqrt[3]{x}$

$80 + 71 – 144 = \sqrt[3]{x}$

$151 – 144 = \sqrt[3]{x}$

$\sqrt[3]{x} = 7$

$x = 7^3 = 343$

45. Answer: A

Explanation: $\sqrt[3]{32768}$ + 36 % of 1050 – (1/7) of 875 = x

32 + (36/100) *1050 – (1/7) *875 = x

$x = 32 + 378 – 125 = 285$

46. Answer: D

Explanation: √33124 ÷ 13 × 8 =? - 16005 ÷ 15

(182/13) *8 = x – (16005/15)

112 = x – 1067

$x = 112 + 1067 = 1179$

47. Answer: D

Explanation: (72/13) *767 – 289 – 561 = x

x = 4248 – 289 – 561 = 3398

48. Answer: C

Explanation: $4^x \times \sqrt{576} = 48036 \div 12 + 2141$

$4^x = [(48036/12) + 2141]/24$

$4^x = [4003 + 2141]/24$

$4^x = 6144/24 = 256$

$4^x = 4^4$

x = 4

49. Answer: B

Explanation: x % of $(28 \times 9 – 72) = 350 + 35^2$

(x/100) *[252 – 72] = 350 + 1225

(x/100) *180 = 1575

x = (1575*100)/180 = 875

50. Answer: C

Explanation: $x^3 – (3/11) *(33/25) *2925 = 278$

$x^3 – 1053 = 278$

$x^3 = 1053 + 278 = 1331$

x = 11

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