

**SIMPLIFICATION &
APPROXIMATION
QUESTIONS WITH
SOLUTION**

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Directions: What approximate value should come in place of question mark (?) in the below given questions?

1. $\sqrt{?} + \sqrt{1335} * 24 - 13.96 = 895$
 A) 1855
 B) 2025
 C) 1950
 D) 2125
 E) None

View Answer

Option B

Solution:

$$\sqrt{?} + 36 * 24 - 14 = 895$$

$$\sqrt{?} + 850 = 895$$

$$\sqrt{?} = 45$$

$$X = 45 * 45 = 2025.$$

2. $(42.03\% \text{ of } 495.04 + 58.02\% \text{ of } 1200) / 9 = ?$
 A) 266.7
 B) 235.6
 C) 284.3
 D) 312.5
 E) None

View Answer

Option C

Solution:

$$(207 + 696) / 9 = 284.3.$$

3. $(9117.88 - 8021.85 + 903.92) * 12 = 1500 * ?$
 A) 15
 B) 18
 C) 24
 D) 22
 E) None

View Answer

Option A

Solution:

$$(9118 - 8022 + 904) * 12 = 1500 * ?$$

$$(2000 * 12 / 1500) = x$$

$$X = 15.$$

4. $\{(4/7 * 15/4) / (3.5 - 1.2)\}^2 = ?$
 A) 1.05
 B) 0.76
 C) 1.25
 D) 0.87
 E) None

View Answer

Option D

Solution:

$$[(60/28) / 2.3]^2 = x$$

$$X = \{15/16\}^2 \implies 0.87.$$

5. If $x=3.5$, $y=4.5$, then $\{(y-x)(y-x)/y+x\} * xy = ?$
 A) 3
 B) 2
 C) 1.85
 D) 1.8
 E) None

View Answer

Option B

Solution:

$$\{(1 * 1) / 8 * 15.75\} = x$$

$$X = 15.75 / 8 = 2.$$

6. $(87.65\% \text{ of } 7159.89 - 68.99\% \text{ of } 8939.89) * 6.06 = (?)^2$
 A) 20
 B) 24
 C) 28
 D) 32
 E) None

View Answer**Option C****Solution:**

$$(6300 - 6168) * 6 = x^2$$

$$132 * 6 = x^2$$

$$792 = x^2$$

$$\text{ie } x=28.$$

7. $35 \frac{5}{7}\%$ of 6510 + $77 \frac{7}{9}\%$ of 5886 = ?% of 6126 + 50% of 5638
- A) 49.5
B) 58.35
C) 54
D) 66.66
E) None

View Answer**Option D****Solution:**

$$250/7\% \text{ of } 6510 + 700/9\% \text{ of } 5886 = ?\% \text{ of } 6126 + 50\% \text{ of } 5638$$

$$2325 + 4578 - 2819 = x/100 * 6126 + 2819$$

$$(4084 * 100) / 6126 = x$$

$$X=66.66.$$

8. $854.926 - 562.005 - 115.98 = 22.6\%$ of (?)
- A) 804
B) 795
C) 826
D) 844
E) None

View Answer**Option A****Solution:**

$$855 - 562 - 116 = 22.6\% \text{ of } x$$

$$177 = 22/100 * x$$

$$X=804.$$

9. $(750/45) / 11/781 * 114/95 = ?$
- A) 1355
B) 1345
C) 1420
D) 1653
E) None

View Answer**Option C****Solution:**

$$750/45 * 781/11 * 114/95$$

$$=(10*71*36) / 19$$

$$=1420.$$

10. $15.33^2 - 12.94^2 + 22.06^2 - 35.65 = ?$
- A) 511
B) 504
C) 631
D) 585
E) None

View Answer**Option B****Solution:**

$$15^2 - 13^2 + 22^2 - 35.65 = x$$

$$225 - 169 + 484 - 35.65 = x$$

$$X= 504.$$

Directions : What will come in place of x in the following questions

1. $1404 \div x + 48 = (5.5\% \text{ of } 300) \times 10$
- A) 18
B) 16
C) 13
D) 14
E) 12

View Answer**Option E**

2. $2^2 \times 3^3 \times 1080 \div 15 = 6^x$
- A) 6
B) 5
C) 7
D) 4
E) 3

View Answer**Option B****Solution:**

$$2^2 \times 3^3 \times 72 = 6^x$$

$$2^2 \times 3^3 \times (2 \times 6^2) = 6^x$$

$$2^3 \times 3^3 \times 6^2 = 6^x$$

$$6^3 \times 6^2 = 6^x$$

$$6^{(3+2)} = 6^x$$

$$3+2 = x$$

$$x = 5$$

3. 48% of $x - 14 \times 9 = 123 + 189 \div 3$
- A) 650
B) 450
C) 400
D) 250
E) 500

View Answer

Option A

4. 34% of $250 + 1088 \div 16 = x$
- A) 143
B) 178
C) 165
D) 153
E) 138

View Answer

Option D

5. $x \div 15 + 32\%$ of $450 = 14\%$ of 1500
- A) 1080
B) 990
C) 860
D) 900
E) 1020

View Answer

Option B

6. 66% of $450 - 1014 \div 13 - x = 14 \times 11$
- A) 65
B) 43
C) 55
D) 52

E) 76

View Answer

Option A

7. $2 \frac{4}{5} \times 5 \frac{5}{6} \times 5 \frac{1}{7} = 5 \frac{1}{4} \times x$
- A) 1
B) 12
C) 17
D) 5
E) 8

View Answer

Option E

Solution:

$$14/5 * 35/6 * 36/7 = 21/4 * x$$

8. 45% of $280 - 4.5\%$ of $40 = \sqrt{x} \times 276 \div 23$
- A) 144
B) 25
C) 81
D) 64
E) 225

View Answer

Option C

9. $(x)^2 - 35\%$ of $480 + 64 = 96 \times 2 \div 48$
- A) 14
B) 10
C) 12
D) 11
E) 13

View Answer

Option C

10. 36% of $250 + \sqrt{3884} = x^2 - 209$
- A) 19
B) 14
C) 21
D) 12

E) 18

View Answer**Option A**

1. $43\% \text{ of } 1400 - 36\% \text{ of } 250 - 18 \times 21 = x$
 A) 153
 B) 161
 C) 165
 D) 161
 E) 134

View Answer**Option E****Explanation:**

$$602 - 90 - 378 = 134$$

2. $(82)^2 - (71)^2 - (34)^2 = x$
 A) 376
 B) 527
 C) 493
 D) 525
 E) 428

View Answer**Option B****Explanation:**

$$6724 - 5041 - 1156 = 527$$

3. $\sqrt{6561} + 13 \times 32 - 784 \div 14 = x^2$
 A) 31
 B) 39
 C) 21
 D) 29
 E) 19

View Answer**Option C****Explanation:**

$$81 + 416 - 56 = 441$$

4. $768 \div 12 + 1332 \div 18 - 728 \div 13 = x$
 A) 82
 B) 88

C) 76

D) 71

E) 67

View Answer**Option A****Explanation:**

$$64 + 74 - 56 = 82$$

5. $65\% \text{ of } 260 + 14\% \text{ of } 450 - 12 \times 17 = x$
 A) 19
 B) 14
 C) 47
 D) 28
 E) 34

View Answer**Option D****Explanation:**

$$169 + 63 - 204 = 28$$

6. $54\% \text{ of } 650 - 1050 \div 14 - 1118 \div 13 = x$
 A) 159
 B) 190
 C) 173
 D) 186
 E) 163

View Answer**Option B****Explanation:**

$$351 - 75 - 86 = 190$$

7. $1105 \div 13 - 4.8\% \text{ of } 250 - 6.4\% \text{ of } 350 = x$
 A) 61.4
 B) 52.5
 C) 43.8
 D) 58.0
 E) 50.6

View Answer

Option E

Explanation:

$$85 - 12 - 22.4 = 50.6$$

8. $\sqrt{5476} - 5.6\% \text{ of } 250 - 4.8\% \text{ of } 450 = x$
 A) 43.9
 B) 37.7
 C) 23.2
 D) 29.5
 E) 38.4

View Answer

Option E

Explanation:

$$74 - 14 - 21.6 = 38.4$$

9. $35\% \text{ of } 580 + 28\% \text{ of } 250 - 32\% \text{ of } 450 = x$
 A) 251
 B) 146
 C) 137
 D) 129
 E) 239

View Answer

Option D

Explanation:

$$203 + 70 - 144 = 129$$

10. $35\% \text{ of } 420 - 26\% \text{ of } 150 - 18\% \text{ of } 350 = x$
 A) 45
 B) 23
 C) 37
 D) 32
 E) 28

View Answer

Option A

Explanation:

$$147 - 39 - 63 = 45$$

Directions: What value should come in place of the x in the following questions?

1. $35\% \text{ of } 520 - 16\% \text{ of } 650 - 684 \div 19 = x$
 A) 46
 B) 25

C) 53

D) 42

E) 29

View Answer

Option D

Explanation:

$$182 - 104 - 36 = 42$$

2. $35\% \text{ of } 420 - 2/9 \times 576 + 15\% \text{ of } 380 = x$
 A) 76
 B) 47
 C) 87
 D) 98
 E) 69

View Answer

Option A

Explanation:

$$147 - 128 + 57 = 76$$

3. $26\% \text{ of } 750 - \sqrt{841} - 24\% \text{ of } 450 = x$
 A) 68
 B) 76
 C) 54
 D) 58
 E) 38

View Answer

Option CD

Explanation:

$$195 - 29 - 108 = 58$$

4. $598 \div 26 + 32\% \text{ of } 750 - 24 \times 13 = x$
 A) -41
 B) -49
 C) -36
 D) -54
 E) -62

View Answer

Option B

Explanation:

$$23 + 240 - 312 = -49$$

5. $13 \times 47 - \sqrt{7225} - 38\% \text{ of } 450 = x$
 A) 212
 B) 262
 C) 355
 D) 445
 E) 337

View Answer

Option C**Explanation:**

$$611 - 85 - 171 = 355$$

6. $16\% \text{ of } 350 - 9 \times 26 + 523 = x$
 A) 345
 B) 225
 C) 420
 D) 315
 E) 290

View Answer

Option A**Explanation:**

$$56 - 234 + 523 = 345$$

7. $3192 \div 56 + \sqrt{7569} - 16 \times 13 = x$
 A) -25
 B) -58
 C) -43
 D) -64
 E) -38

View Answer

Option D**Explanation:**

$$57 + 87 - 208 = -64$$

8. $13 \times 34 - 1377 \div 51 - \sqrt{1369} = x$
 A) 416
 B) 324
 C) 365
 D) 405
 E) 378

View Answer

Option E**Explanation:**

$$442 - 27 - 37 = 378$$

9. $28\% \text{ of } 650 - 1088 \div 17 = x$
 A) 118
 B) 156
 C) 128
 D) 141
 E) 109

View Answer

Option A**Explanation:**

$$182 - 64 = 118$$

10. $48\% \text{ of } 650 - 1092 \div 13 = x$
 A) 267
 B) 411
 C) 365
 D) 392
 E) 228

View Answer

Option E**Explanation:**

$$312 - 84 = 228$$

Directions: What value should come in place of the x in the following questions?

1. $15\% \text{ of } 920 - 26\% \text{ of } 550 + 408 \div 17 = x$
 A) 16
 B) 25
 C) 28
 D) 32
 E) 19

View Answer

Option E**Explanation:**

$$138 - 143 + 24 = 19$$

2. $45\% \text{ of } 2020 - 3/7 \times 1092 - 15\% \text{ of } 420 = x$
 A) 326
 B) 147

- C) 287
D) 378
E) 239

View Answer

Option D

Explanation:

$$909 - 468 - 63 = 378$$

3. $15\% \text{ of } 920 - \sqrt{841} + 25\% \text{ of } 580 = x$
A) 198
B) 276
C) 254
D) 146
E) 138

View Answer

Option C

Explanation:

$$138 - 29 + 145 = 254$$

4. $621 \div 23 + 28\% \text{ of } 750 - 23 \times 13 = x$
A) -41
B) -48
C) -36
D) -54
E) -62

View Answer

Option E

Explanation:

$$27 + 210 - 299 = -62$$

5. $27 \times 49 - \sqrt{7225} - 36\% \text{ of } 350 = x$
A) 1112
B) 1262
C) 1098
D) 1045
E) 1137

View Answer

Option A

Explanation:

$$1323 - 126 - 85 = 1112$$

6. $26\% \text{ of } 3450 - 8 \times 34 - 645 = x$
A) -30
B) -25
C) -20
D) -15
E) -10

View Answer

Option C

Explanation:

$$897 - 272 - 645 = -20$$

7. $3528 \div 56 + \sqrt{7569} - 14 \times 12 = x$
A) -25
B) -18
C) -23
D) -15
E) -28

View Answer

Option B

Explanation:

$$63 + 87 - 168 = -18$$

8. $12 \times 39 - 1326 \div 51 - \sqrt{1369} = x$
A) 416
B) 324
C) 365
D) 405
E) 438

View Answer

Option D

Explanation:

$$468 - 26 - 37 = 405$$

9. $24\% \text{ of } 750 - 1197 \div 19 = x$
A) 117
B) 156
C) 128
D) 141
E) 109

View Answer

Option A**Explanation:**

$$180 - 63 = 117$$

10. $78\% \text{ of } 650 - 41472 \div 48 \div 9 = x$

- A) 267
- B) 411
- C) 365
- D) 392
- E) 279

View Answer**Option B****Explanation:**

$$507 - 96 = 411$$

Directions: What value should come in place of the x in the following questions?

1. $\sqrt{3969} - 45\% \text{ of } 340 + 936 \div 13 = x$

- A) -18
- B) -15
- C) -34
- D) -24
- E) -6

View Answer**Option E****Solution:**

$$63 - 153 + 72 = -18$$

2. $882 \div 14 - 35\% \text{ of } 280 + 3380 \div 52 = x$

- A) 43
- B) 68
- C) 76
- D) 50
- E) 30

View Answer**Option DE****Solution:**

$$63 - 98 + 65 = 30$$

3. $\sqrt{(58\% \text{ of } 1450)} - 16\% \text{ of } 650 + \sqrt{7396} = x$

- A) 18
- B) 27
- C) 20

D) 11

E) 36

View Answer**Option D****Solution:**

$$\sqrt{841} - 104 + 86 = 29 - 104 + 86 = 11$$

4. $15 \times 23 - 18\% \text{ of } 1150 = x$

- A) 187
- B) 138
- C) 133
- D) 129
- E) 156

View Answer**Option B****Solution:**

$$345 - 207 = 138$$

5. $\sqrt{3364} - 1164 \div 12 + \sqrt{(42\% \text{ of } 1050)} = x$

- A) -11
- B) -14
- C) -9
- D) -25
- E) -18

View Answer**Option E****Solution:**

$$58 - 97 + 21 = -18$$

6. $1235 \div 19 - 15\% \text{ of } 580 + \sqrt{3364} = x$

- A) 11
- B) 17
- C) 36
- D) 25
- E) 46

View Answer**Option C****Solution:**

$$65 - 87 + 58 = 36$$

7. $15 \times 19 - 938 \div 14 - 12\% \text{ of } 250 = x$
 A) 188
 B) 125
 C) 119
 D) 225
 E) 203

View Answer**Option A****Solution:**

$$285 - 67 - 30 = 188$$

8. $13 \times 26 - 1196 \div 26 = x$
 A) 161
 B) 292
 C) 334
 D) 257
 E) 127

View Answer**Option B****Solution:**

$$338 - 46 = 292$$

9. $59\% \text{ of } 1600 - 1022 \div 14 = x$
 A) 789
 B) 529
 C) 913
 D) 871
 E) 676

View Answer**Option D****Solution:**

$$944 - 73 = 871$$

10. $52\% \text{ of } 350 - \sqrt{6084} = x$
 A) 83
 B) 95
 C) 87
 D) 122
 E) 104

View Answer**Option E****Solution:**

$$182 - 78 = 104$$

Directions: What value should come in place of the x in the following questions?

1. $25\% \text{ of } 720 + \sqrt{6084} - 12 \times 16 = x$
 A) 61
 B) 78
 C) 73
 D) 54
 E) 66

View Answer**Option E****Solution:**

$$180 + 78 - 192 = 66$$

2. $45\% \text{ of } 360 + 1008 \div 12 - 1248 \div 13 = x$
 A) 143
 B) 168
 C) 176
 D) 150
 E) 158

View Answer**Option D****Solution:**

$$162 + 84 - 96 = 150$$

3. $37^2 - 23 \times 46 - 26\% \text{ of } 350 = x$
 A) 278
 B) 240
 C) 220
 D) 217
 E) 236

View Answer**Option C****Solution:**

$$1369 - 1058 - 91 = 220$$

4. $15\% \text{ of } 620 + 22\% \text{ of } 550 - 1235 \div 19 = x$
 A) 187
 B) 149
 C) 133

- D) 129
E) 156

View Answer

Option B

Solution:

$$93 + 121 - 65 = 149$$

5. $\sqrt{3364} + 896 \div 14 - 15\% \text{ of } 580 = x$
A) 61
B) 84
C) 39
D) 45
E) 35

View Answer

Option E

Solution:

$$58 + 64 - 87 = 35$$

6. $46\% \text{ of } 650 - 13 \times 26 + 1196 \div 26 = x$
A) 11
B) 7
C) 19
D) 25
E) 46

View Answer

Option B

Solution:

$$299 - 338 + 46 = 7$$

7. $\sqrt{4624} + 1118 \div 13 - (13)2 = x$
A) -15
B) -8
C) -19
D) -25
E) -21

View Answer

Option A

Solution:

$$68 + 86 - 169 = -15$$

8. $\sqrt{3721} + \sqrt{5184} - \sqrt{5776} = x$
A) 61
B) 78
C) 34
D) 57
E) 27

View Answer

Option D

Solution:

$$61 + 72 - 76 = 57$$

9. $\sqrt{(65\% \text{ of } 260 + 15\% \text{ of } 580)} + 1022 \div 14 = x$
A) 89
B) 329
C) 213
D) 165
E) 76

View Answer

Option A

Solution:

$$\sqrt{(169+87)} + 73 = 16 + 73 = 89$$

10. $85\% \text{ of } 160 - 52\% \text{ of } 350 + 68 = x$
A) 83
B) 45
C) 67
D) 22
E) 34

View Answer

Option D

Solution:

$$136 - 182 + 68 = 22$$

Directions: What value should come in place of the x in the following questions?

1. $12 \times 29 - 728 \div 13 - 32\% \text{ of } 350 = x$
A) 173
B) 191
C) 187
D) 176
E) 180

View Answer**Option E****Explanation:**

$$348 - 56 - 112 = 180$$

2. $1344 \div 14 + \sqrt{4761} - 18\% \text{ of } 650 = x$
 A) 39
 B) 43
 C) 52
 D) 48
 E) 34

View Answer**Option D****Explanation:**

$$96 + 69 - 117 = 48$$

3. $38\% \text{ of } 250 - 45\% \text{ of } 240 + 23 \times 17 = x$
 A) 378
 B) 234
 C) 256
 D) 287
 E) 309

View Answer**Option A****Explanation:**

$$95 - 108 + 391 = 378$$

4. $12 \times 17 - 819 \div 13 - 1134 \div 18 = x$
 A) 85
 B) 78
 C) 69
 D) 63
 E) 92

View Answer**Option B****Explanation:**

$$204 - 63 - 63 = 78$$

5. $1105 \div 13 + \sqrt{1849} - 12\% \text{ of } 250 = x$
 A) 57
 B) 45
 C) 98
 D) 87

E) 81

View Answer**Option C****Explanation:**

$$85 + 43 - 30 = 98$$

6. $48\% \text{ of } 650 - 1105 \div 13 - 13 \times 28 = x$
 A) -103
 B) -96
 C) -128
 D) -212
 E) -137

View Answer**Option e****Explanation:**

$$312 - 85 - 364 = -137$$

7. $16 \times 23 - 546 \div 14 - 15\% \text{ of } 520 = x$
 A) 288
 B) 251
 C) 290
 D) 213
 E) 237

View Answer**Option b****Explanation:**

$$368 - 39 - 78 = 251$$

8. $52\% \text{ of } 1050 - \sqrt{4761} - 1248 \div 13 = x$
 A) 381
 B) 254
 C) 288
 D) 309
 E) 348

View Answer**Option A****Explanation:**

$$546 - 69 - 96 = 381$$

9. $1204 \div 14 + 768 \div 12 - \sqrt{1764} = x$
 A) 116

- B) 91
- C) 98
- D) 123
- E) 108

View Answer

Option E

Explanation:

$$86 + 64 - 42 = 108$$

10. $45\% \text{ of } 240 + 23^2 - 52\% \text{ of } 1350 = x$

- A) -23
- B) -98
- C) -43
- D) -65
- E) -56

View Answer

Option D

Explanation:

$$108 + 529 - 702 = -65$$

Directions: What value should come in place of the x in the following questions?

1. $45\% \text{ of } 360 + \sqrt{6084} - 9 \times 23 = x$

- A) 39
- B) 56
- C) 19
- D) 27
- E) 33

View Answer

Option E

Explanation:

$$162 + 78 - 207 = 33$$

2. $38\% \text{ of } 350 - 936 \div 13 + 672 \div 56 = x$

- A) 73
- B) 89
- C) 53
- D) 68
- E) 41

View Answer

Option A

Explanation:

$$133 - 72 + 12 = 73$$

3. $\sqrt{2025} + 1575 \div 63 - 46 = x$

- A) 27
- B) 35
- C) 24
- D) 40
- E) 14

View Answer

Option C

Explanation:

$$45 + 25 - 46 = 24$$

4. $48 \times 9 - 15\% \text{ of } 620 - 85\% \text{ of } 360 = x$

- A) 50
- B) 33
- C) 26
- D) 61
- E) 44

View Answer

Option B

Explanation:

$$432 - 93 - 306 = 33$$

5. $26\% \text{ of } 450 - (25\% \text{ of } 6300) \div 35 = x$

- A) 99
- B) 86 $\times \div \sqrt{\quad}$
- C) 80
- D) 77
- E) 72

View Answer

Option E

Explanation:

$$117 - (1575)/35 = 117 - 45 = 72$$

6. $\sqrt{2209} - 45\% \text{ of } 340 + 1204 \div 14 = x$

- A) -50
- B) -10
- C) -40
- D) -30
- E) -20

View Answer**Option E****Explanation:**

$$47 - 153 + 86 = -20$$

7. $35\% \text{ of } 280 - 936 \div 13 + 3380 \div 52 = x$
 A) 85
 B) 91
 C) 103
 D) 149
 E) 81

View Answer**Option B****Explanation:**

$$98 - 72 + 65 = 91$$

8. $\sqrt{1849} - 48\% \text{ of } 150 + 45\% \text{ of } 240$
 A) 105
 B) 98
 C) 83
 D) 79
 E) 61

View Answer**Option D****Explanation:**

$$43 - 72 + 108 = 79$$

9. $25\% \text{ of } 620 - 65\% \text{ of } 380 + 97 = x$
 A) 5
 B) 8
 C) 6
 D) 4
 E) 9

View Answer**Option A****Explanation:**

$$155 - 247 + 87 = 5$$

10. $\sqrt{2916} + 13 \times 28 - 16 \times 24 = x$
 A) 55
 B) 58
 C) 34
 D) 49

E) 61

View Answer**Option C****Explanation:**

$$54 + 364 - 384 = 34$$

Directions: What value should come in place of the x in the following questions?

1. $25\% \text{ of } 620 + 35\% \text{ of } 540 - 65\% \text{ of } 380 = x$
 A) 108
 B) 56
 C) 149
 D) 97
 E) 83

View Answer**Option D****Explanation:**

$$155 + 189 - 247 = 97$$

2. $\sqrt{2209} + \sqrt{2401} - \sqrt{3969} = x$
 A) 45
 B) 29
 C) 33
 D) 38
 E) 41

View Answer**Option C****Explanation:**

$$47 + 49 - 63 = 33$$

3. $1204 \div 14 - 45\% \text{ of } 340 + 882 \div 14 = x$
 A) 7
 B) 5
 C) -6
 D) 10
 E) -4

View Answer**Option E****Explanation:**

$$86 - 153 + 63 = -4$$

4. $23^2 - 19^2 - 35\%$ of 280 = x
 A) 70
 B) 83
 C) 76
 D) 67
 E) 64

View Answer**Option A****Explanation:**

$$529 - 361 - 98 = 70$$

5. 22% of 650 - $936 \div 13 + 189 = x$
 A) 249
 B) 236
 C) 280
 D) 277
 E) 260

View Answer**Option E****Explanation:**

$$143 - 72 + 189$$

6. $523 - 65\%$ of 360 - 45% of 520 = x
 A) 55
 B) 58
 C) 43
 D) 49
 E) 61

View Answer**Option A****Explanation:**

$$523 - 234 - 234 = 55$$

7. 35% of 420 - $3380 \div 52 = x$
 A) 57
 B) 82
 C) 65
 D) 61
 E) 77

View Answer**Option B****Explanation:**

$$147 - 65 = 82$$

8. $\sqrt{2916} - 45\%$ of 240 + 35% of 360 = $18x$
 A) 3.5
 B) 3
 C) 4
 D) 4.5
 E) 6

View Answer**Option C****Explanation:**

$$54 - 108 + 126 = 72 = 18 \times 4$$

9. $13 \times 28 - \sqrt{1849} - 938 \div 14 = x$
 A) 230
 B) 248
 C) 288
 D) 276
 E) 254

View Answer**Option E****Explanation:**

$$364 - 43 - 67 = 254$$

10. $16 \times 24 - 1020 \div 12 - 48\%$ of 150 = x
 A) 198
 B) 265
 C) 227
 D) 277
 E) 182

View Answer**Option C****Explanation:**

$$384 - 85 - 72 = 227$$

Directions: What approximate value should come in place of the x in the following questions?

1. 36.06% of 449.95 + $\sqrt{3140} - 17.96 \times 12.92$
 A) -34
 B) -12
 C) -36
 D) -16
 E) -23

View Answer

Option D

Solution:

$$162 + 56 - 234 = -16$$

2. $\sqrt{2900 + 126.07\% \text{ of } 350.09 - 23.06} \times 15.93 = x$
 A) 153
 B) 187
 C) 126
 D) 118
 E) 134

View Answer

Option C

Solution:

$$53 + 441 - 368 = 126$$

3. $\sqrt{(52.04\% \text{ of } 650.002 + 88.902 \times 16.08) - 495} \div 13$
 A) 17
 B) 11
 C) 10
 D) 8
 E) 4

View Answer

Option E

Solution:

$$\sqrt{(338 + 1424) - 38} = 42 - 38 = 4$$

4. $830 \div 16 - 34.09\% \text{ of } 450.03 + 44.99\% \text{ of } 280 = x$
 A) 25
 B) 29
 C) 37
 D) 33
 E) 40

View Answer

Option A

Solution:

$$52 - 152 + 126 = 25$$

5. $825 \div 14 - 635 \div 12.02 + 20.09\% \text{ of } 370 = x$
 A) 48
 B) 80

C) 89

D) 76

E) 70

View Answer

Option B

Solution:

$$59 - 53 + 74 = 80$$

6. $\sqrt{6090 + 47.98\% \text{ of } 550.09 - 52.05\% \text{ of } 349.90} = x$
 A) 160
 B) 170
 C) 180
 D) 130
 E) 150

View Answer

Option A

Solution:

$$78 + 264 - 182 = 160$$

7. $46.02\% \text{ of } 150.099 - 7130 \div 12.009 \div 8.98 = x$
 A) 5
 B) 0.5
 C) 3
 D) 8
 E) 11

View Answer

Option C

Solution:

$$69 - 66 = 3$$

8. $765 \div 13.02 \times 15.09 - (12 + 14.009)\% \text{ of } 649.93 - 239.09 = x$
 A) 477
 B) 428
 C) 376
 D) 419
 E) 391

View Answer

Option A

Solution:

$$885 - 169 - 239 = 477$$

9. 85.09% of $259.99 - 11.88 \times 17.09 + 85.918 = x$
 A) 96
 B) 189
 C) 86
 D) 103
 E) 116

View Answer

Option D

Solution:

$$221 - 204 + 86 = 103$$

10. $18.09 \times 14.87 - 14 \times 13 - \sqrt{2400} = x$
 A) 28
 B) 41
 C) 36
 D) 45
 E) 39

View Answer

Option E

Solution:

$$270 - 182 - 49 = 39$$

Directions: What approximate value should come in place of the x in the following questions?

1. $26.02 \times 36.99 + 3200 \div 68 - 36\%$ of $650 = ?$
 A) 775
 B) 561
 C) 265
 D) 761
 E) 628

View Answer

Option A

2. $\sqrt{2800} + 38.09\%$ of $749.99 - 35\%$ of $860.009 = ?$
 A) 26
 B) 77
 C) 37
 D) 25
 E) 28

View Answer

Option C

3. $3020 \div 9 \div 6 + 66\%$ of $250 - \sqrt{6245} = ?$
 A) 284
 B) 398
 C) 276
 D) 233
 E) 142

View Answer

Option E

4. $2050 \div 89 + 162\%$ of $350 - 65\%$ of $360 = ?$
 A) 273
 B) 356
 C) 176
 D) 271
 E) 367

View Answer

Option B

5. $56^2 + 17.89 \times 29.09 - 5960 \div 23 = ?$
 A) 3469
 B) 3399
 C) 2887
 D) 3137
 E) 2060

View Answer

Option B

6. $46.05\% \text{ of } 350.009 + 885 \div 13 - 12.99 \times 16.09 = x$
 A) 19
 B) 11
 C) 33
 D) 26
 E) 21

View Answer

Option E

7. $\sqrt{1160} - 27.89\% \text{ of } 250.009 + 670 \div 12 = x$
 A) 31
 B) 12
 C) 23
 D) 20
 E) 38

View Answer

Option D

8. $47.99\% \text{ of } 450 - 1120 \div 26 - 18.04\% \text{ of } 649.93 = x$
 A) 13
 B) 77
 C) 43
 D) 56
 E) 47

View Answer

Option C

9. $13.09 \times 28.909 - 32\% \text{ of } 350 - \sqrt{7400} = x$
 A) 151
 B) 179
 C) 137
 D) 141

E) 119

View Answer

Option B

10. $15 \times 39.09 - 35.08\% \text{ of } 1119.99 - 129.09 = x$
 A) 69
 B) 56
 C) 64
 D) 42
 E) 48

View Answer

Option C

1. $59\% \text{ of } 1600 + 26\% \text{ of } 450 - 17 \times 24 = x$
 A) 653
 B) 561
 C) 265
 D) 761
 E) 628

View Answer

Option A

2. $(86)^2 - (73)^2 - (36)^2 = x$
 A) 376
 B) 771
 C) 893
 D) 725
 E) 628

View Answer

Option B

3. $\sqrt{6561} + 12 \times 29 - 1248 \div 13 = x$
 A) 284
 B) 398
 C) 276
 D) 333
 E) 319

View Answer

Option D

4. $792 \div 12 + 1134 \div 18 - 728 \div 13 = x$
 A) 73
 B) 81
 C) 76
 D) 71
 E) 67

View Answer

Option A

5. $85\% \text{ of } 460 - 24\% \text{ of } 350 - 13 \times 19 = x$
 A) 69
 B) 54
 C) 87
 D) 37
 E) 60

View Answer

Option E

6. $74\% \text{ of } 250 - 826 \div 14 - 819 \div 13 = x$
 A) 59
 B) 81
 C) 73
 D) 86
 E) 63

View Answer

Option E

7. $5.6\% \text{ of } 250 + 6.4\% \text{ of } 350 + 4.8\% \text{ of } 450 = x$
 A) 61.4
 B) 52.5
 C) 43.8
 D) 58.0
 E) 48.6

View Answer

Option D

8. $4.8\% \text{ of } 250 + 1105 \div 13 - \sqrt{5476} = x$
 A) 43
 B) 37
 C) 23
 D) 29
 E) 47

View Answer

Option C

9. $15\% \text{ of } 620 + 18\% \text{ of } 350 - 18\% \text{ of } 650 = x$
 A) 51
 B) 46
 C) 37
 D) 41
 E) 39

View Answer

Option E

10. $2 \frac{1}{3} + 4 \frac{2}{5} - 5 \frac{4}{15} = x$
 A) $\frac{11}{15}$
 B) $\frac{8}{15}$
 C) $1 \frac{7}{15}$
 D) $1 \frac{8}{15}$

E) $1\frac{3}{5}$ **View Answer****Option C**

1. $18\% \text{ of } 1150 + 12\% \text{ of } 250 - 35\% \text{ of } 420 = x$
 A) 108
 B) 90
 C) 92
 D) 77
 E) 95

View Answer**Option B**

2. $85^2 - 76^2 - \sqrt{7569} = x$
 A) 1362
 B) 1287
 C) 1203
 D) 1328
 E) 1376

View Answer**Option A**

3. $58\% \text{ of } 650 + 897 \div x - 62\% \text{ of } 750 = -19$
 A) 21
 B) 13
 C) 14
 D) 16
 E) 23

View Answer**Option B**

4. $1344 \div 14 - 16\% \text{ of } 650 + \sqrt{7396} = x$
 A) 46
 B) 87
 C) 67

D) 78

E) 51

View Answer**Option D**

5. $x\% \text{ of } 6200 + 12 \times 26 - 58\% \text{ of } 1450 = 649$
 A) 41
 B) 19
 C) 36
 D) 29
 E) 21

View Answer**Option B**

6. $\sqrt{x} + 18\% \text{ of } 250 - 15\% \text{ of } 960 = -25$
 A) 5476
 B) 5824
 C) 5762
 D) 5776
 E) 5526

View Answer**Option A**

7. $-\sqrt{7921} + 1102 \div 19 + 15 \times 23 = x$
 A) 261
 B) 256
 C) 314
 D) 362
 E) 357

View Answer**Option C**

8. $85\% \text{ of } x - 4344 \div 12 - 13 \times 28 = 90$
 A) 580
 B) 380
 C) 620
 D) 960

E) 240

View Answer**Option D**

9. $48\% \text{ of } 650 - 1105 \div 13 - 45\% \text{ of } 240 = 7x$
 A) -48
 B) 22
 C) 13
 D) 17
 E) -21

View Answer**Option D**

10. $52\% \text{ of } 1050 - 14 \times 29 - 1164 \div 12 = x$
 A) 29
 B) 38
 C) 45
 D) 41
 E) 43

View Answer**Option E**

Directions: What value should come in place of the x in the following questions?

1. $65\% \text{ of } 1260 + \sqrt{4489} - 16 \times 27 = x$
 A) 498
 B) 454
 C) 392
 D) 377
 E) 325

View Answer**Option B**

2. $26 \times 19 + 23^2 - 52\% \text{ of } 1350 = x$
 A) 321
 B) 287
 C) 203

D) 328

E) 376

View Answer**Option A**

3. $12\% \text{ of } 650 - 728 \div x + 24\% \text{ of } 450 = 130$
 A) 18
 B) 13
 C) 14
 D) 16
 E) 17

View Answer**Option B**

4. $1344 \div 14 \div 4 \times 34 - 35\% \text{ of } 540 - 45\% \text{ of } 1320 = x$
 A) 46
 B) 87
 C) 67
 D) 33
 E) 51

View Answer**Option D**

$$1344 \div 14 \div 4 \times 34 - 35\% \text{ of } 540 - 45\% \text{ of } 1320 = x$$

$$816 - 189 - 594 = 33$$

5. $\sqrt{x} \times 12 - 26\% \text{ of } 1650 - 13 \times 34 = -19$
 A) 2401
 B) 2119
 C) 3136
 D) 5329
 E) 5041

View Answer**Option E**

6. $882 \div 14 + 1248 \div 13 - 1392 \div 16 = x\% \text{ of } 450$

- A) 16
- B) 12
- C) 18
- D) 22
- E) 26

View Answer

Option A

7. $\sqrt{3136} + \sqrt{3844} - \sqrt{3481} = x$
- A) 61
 - B) 56
 - C) 59
 - D) 62
 - E) 57

View Answer

Option C

8. $28\% \text{ of } x - 1105 \div 13 + 156 \div 6 = 67$
- A) 550
 - B) 350
 - C) 650
 - D) 450
 - E) 250

View Answer

Option D

9. $\sqrt{2401} + \sqrt{4761} - 18\% \text{ of } 650 = x$
- A) -1
 - B) 2
 - C) 3
 - D) -2
 - E) 1

View Answer

Option E

10. $38\% \text{ of } 250 - 85\% \text{ of } 560 + 13 \times x = 61$
- A) 29

- B) 38
- C) 45
- D) 41
- E) 34

View Answer

Option E

Directions: What value should come in place of the x in the following questions?

1. $36\% \text{ of } 1350 - 15 \times 19 - 15\% \text{ of } 260 = x$
- A) 128
 - B) 162
 - C) 139
 - D) 117
 - E) 108

View Answer

Option B

2. $1615 \div 19 - 12 \times 27 + 45\% \text{ of } 1240 = x$
- A) 158
 - B) 276
 - C) 319
 - D) 483
 - E) 349

View Answer

Option C

3. $53^2 - 65\% \text{ of } 1380 - 948 \div x = 1833$
- A) 18
 - B) 4
 - C) 15
 - D) 12
 - E) 24

View Answer

Option D

Solution:

4. $26\% \text{ of } 850 - 18\% \text{ of } 450 - \sqrt{4356} = x$
 A) 99
 B) 56
 C) 87
 D) 72
 E) 74

View Answer

Option E

5. $\sqrt{x} \% \text{ of } 350 + 52\% \text{ of } 450 - 23 \times 17 = 130$
 A) 3758
 B) 6724
 C) 5636
 D) 8542
 E) 4728

View Answer

Option B

6. $46^2 - 1638 \div x - 14 \times 29 = 945 + 639$
 A) 13
 B) 24
 C) 23
 D) 29
 E) 9

View Answer

Option A

7. $32\% \text{ of } x - 12 \times 17 - 546 \div 14 = -35$
 A) 520
 B) 410
 C) 390
 D) 650
 E) 330

View Answer

Option D

8. $\sqrt{(42\% \text{ of } 1050) + 768 \div 16 - 636 \div 12} = x$
 A) 19
 B) 17
 C) 16
 D) 18
 E) 13

View Answer

Option C

9. $(9.6\% \text{ of } 250 + 4.8\% \text{ of } 750)\% \text{ of } 1920 - 897 = x$
 A) 217
 B) 206
 C) 157
 D) 255
 E) 115

View Answer

Option D

10. $\sqrt{1156} + \sqrt{3025} + x\% \text{ of } 650 = 167$
 A) 22
 B) 28
 C) 16
 D) 12
 E) 26

View Answer

Option D

Directions: What value should come in place of the x in the following questions?

1. $26\% \text{ of } 650 + \sqrt{784} - 16 \times 13 = x$
 A) -28
 B) -11
 C) -39
 D) -17
 E) -8

View Answer

Option B

1. $569 - 35\% \text{ of } 460 - 25 \times 14 = x$
 A) 58
 B) 76
 C) 35
 D) 83
 E) 49

View Answer

Option A

2. $\sqrt{1156} \% \text{ of } 650 - 18 \times 23 + 2686 \div 17 = x$
 A) -39
 B) -24
 C) -35
 D) -44
 E) -54

View Answer

Option C

Solution:

3. $x\% \text{ of } 350 + \sqrt{1369} - 35\% \text{ of } 240 = 219$
 A) 99
 B) 56
 C) 87
 D) 72
 E) 76

View Answer

Option E

4. $19 \times 28 + 1638 \div 26 - 36\% \text{ of } x = 181$
 A) 1750
 B) 1150
 C) 1630
 D) 1540
 E) 1720

View Answer

Option B

5. $2898 \div x - 45\% \text{ of } 420 + 19 \times 13 = 16\% \text{ of } 1150$
 A) 57
 B) 34
 C) 23
 D) 29
 E) 62

View Answer

Option C

6. $18\% \text{ of } 350 + 39 \times 16 - 3760 \div 16 = x$
 A) 527
 B) 414
 C) 398
 D) 452
 E) 334

View Answer

Option D

7. $51^2 - 56\% \text{ of } 750 - 629 = x$
 A) 1924
 B) 1776
 C) 1552
 D) 1822
 E) 1628

View Answer

Option C

8. $\sqrt{2916} + 38\% \text{ of } 450 - 12 \times x = 21$
 A) 17
 B) 26
 C) 7
 D) 33
 E) 15

View Answer

Option A

9. $\sqrt{3969} + \sqrt{4489} + x\%$ of 650 = 338
 A) 56
 B) 28
 C) 36
 D) 32
 E) 44

View Answer**Option D**

1. 70% of 620 – ?% of 850 = 204
 A) 21.056
 B) 24.152
 C) 27.056
 D) 23.144
 E) 22.264

View Answer**Option C****Solution:**

$$434 - ?\% \text{ of } 850 = 204$$

$$\Rightarrow 230 = ?\% \text{ of } 850$$

$$\Rightarrow (230 * 100) / 850 = ?$$

$$\Rightarrow 27.056 = ?$$

2. $80^{3.7} / 80^{1.22} = 80^?$
 A) 4.22
 B) 4.02
 C) 2.55
 D) 3.65
 E) 2.48

View Answer**Option E****Solution:**

$$80^{(3.7-1.22)} = 80^?$$

$$\Rightarrow ? = 2.48$$

3. 15.6% of 525 – 8% of ? = 15.52
 A) 775.23
 B) 829.75
 C) 785.15
 D) 825.13
 E) 880.32

View Answer**Option B****Solution:**

$$81.9 - 15.52 = (66.38 * 100) / 8 = 829.75 = ?$$

4. $8520 + 210 - 9783 + 1225 = ? * 16$
 A) 13.55
 B) 11.23
 C) 10.75
 D) 12.15
 E) 10.19

View Answer**Option C****Solution:**

$$172 = ? * 16$$

$$\Rightarrow ? = 10.75$$

5. $4(1/6) + 3(1/7) - 2(4/6) + 5(2/7) = ?$
 A) $6(12/17)$
 B) $9(13/14)$
 C) $8(11/13)$
 D) $7(11/12)$
 E) $8(12/15)$

View Answer**Option B****Solution:**

$$25/6 + 22/7 - 16/6 + 37/7$$

$$= 9/6 + 59/7$$

$$= (63 + 354) / 42$$

$$= 9(13/14)$$

6. $56421 - 32047 + 29500 - 890 = ? + 5720$
 A) 47,264
 B) 42,125
 C) 42,500
 D) 43,000
 E) 41,230

View Answer**Option A****Solution:**

$$85,921 - 32,937 = ? + 5720$$

$$= 52,984 - 5720 = 47,264$$

7. 33.45 % of 720 = ? – 3504
 A) 3,256.45

- B) 3,744.84
- C) 3,214.51
- D) 3,255.45
- E) 3,254.64

View Answer

Option B

Solution:

$$240.84 = ? - 3504$$

$$\Rightarrow ? = 3,744.84$$

8. $\sqrt{?} + 20 = \sqrt{2704}$
- A) 1144
 - B) 1024
 - C) 1150
 - D) 1020
 - E) 1200

View Answer

Option B

Solution:

$$\sqrt{?} = 52 - 20 = 32$$

$$? = 1024$$

9. $(81)^6 * (3)^2 / (27)^7 = (3)^?$
- A) 6
 - B) 9
 - C) 4
 - D) 7
 - E) 5

View Answer

Option E

Solution:

$$(3)^{24} * (3)^{-19} = (3)^?$$

$$= 24 - 19 = 5$$

10. $(5/8)*5664 + (2/11)*6457 = ?$
- A) 4455
 - B) 4125
 - C) 4714
 - D) 4500
 - E) 4214

View Answer

Option C

Solution:

$$(5/8)*5664 + (2/11)*6457$$

$$= 5 * 708 + 2 * 587$$

$$= 3540 + 1174 = 4714$$

Directions: What approximate value should come in place of the x in the following questions? (You are expected to do approximations)

1. $60.09\% \text{ of } 2535.112 + 831.94 \div 13 - 34^2 = x$
- A) 303
 - B) 345
 - C) 388
 - D) 457
 - E) 429

View Answer

Option E

Solution:

$$60\% \text{ of } 2535 = 1521$$

$$832 \div 13 = 64$$

$$- 34^2 = - 1156$$

2. $\sqrt{1765} + 1010 \div 14 - 64\% \text{ of } 250 = x$
- A) -46
 - B) -26
 - C) 32
 - D) -33
 - E) 39

View Answer

Option A

Solution:

$$\sqrt{1765} = 42$$

$$1010 \div 14 = 72$$

$$- 64\% \text{ of } 250 = 160$$

3. $795.009 \div 15.234 + 768.123 \div 12.099 + 63.98 \div 4 - 1272.985 \div 19.195 = x$
- A) 62
 - B) 66
 - C) 75
 - D) 81
 - E) 78

View Answer

Option B

Solution:

$$795 \div 15 = 53$$

$$768 \div 12 = 64$$

$$64 \div 4 = 16$$

$$- 1273 \div 19 = -67$$

4. $\sqrt{x} + 36.09\% \text{ of } 350 - 16.009 \times 22.897 = - (14)^2$
 A) 2068
 B) 2025
 C) 2749
 D) 2116
 E) 2209

View Answer

Option D

Solution:

$$36\% \text{ of } 350 = 126$$

$$16 \times 23 = 368$$

$$-(14)^2 = -196$$

$$\text{so } \sqrt{x} = -196 - 126 + 368 = 46$$

$$\text{So, } x = 2116$$

5. $18\% \text{ of } 649.99 - 945 \div 16 + 456.23 = x$
 A) 514
 B) 578
 C) 334
 D) 424
 E) 488

View Answer

Option A

6. $x\% \text{ of } (6750 \div 15) - 12.12 \times 16.16 = 116.99 - 23.99\% \text{ of } 649.891$
 A) 22
 B) 45
 C) 34
 D) 32
 E) 48

View Answer

Option C

Solution:

$$x\% \text{ of } 450 - 192 = 117 - 156$$

$$x\% \text{ of } 450 = 153$$

$$x = 34$$

7. $58.09\% \text{ of } 1250 + 27.992\% \text{ of } 449.90 = x$
 A) 845
 B) 715
 C) 890
 D) 765
 E) 850

View Answer

Option E

8. $x\% \text{ of } 4860 - 459.08 + 26.06\% \text{ of } 1350 = 2565.299$
 A) 55
 B) 35
 C) 64
 D) 60
 E) 63

View Answer

Option A

Solution:

$$x\% \text{ of } 4860 = 2565 + 459 - 351$$

$$x\% \text{ of } 4860 = 2673$$

$$x = 26730/486 = 55$$

9. $(23)^2 - 24.069 \times 15.992 + 15.99\% \text{ of } 550 = x$
 A) 409
 B) 276
 C) 233
 D) 308
 E) 205

View Answer

Option C

10. $\sqrt{1025} + \sqrt{1370} + 28\% \text{ of } 750 = x$
 A) 372
 B) 234
 C) 335
 D) 279
 E) 235

View Answer**Option D****Directions: What value should come in place of the x in the following questions?**

1. $(\sqrt{5} - \sqrt{10})^2 + (\sqrt{2} + 5)^2 = x^3 - 22$
 A) 3
 B) 5
 C) 8
 D) 7
 E) 4

View Answer**Option E****Solution:**

$$\begin{aligned}(\sqrt{5} - \sqrt{10})^2 &= \sqrt{5}^2 + \sqrt{10}^2 - 2*\sqrt{5}*\sqrt{10} = 5 + 10 - 2*\sqrt{5}*\sqrt{2}*\sqrt{5} = 15 - 10\sqrt{2} \\ (\sqrt{2} + 5)^2 &= 2 + 25 + 10\sqrt{2} \\ \text{So } 15 - 10\sqrt{2} + 27 + 10\sqrt{2} &= x^3 - 22 \\ 15 + 27 + 22 &= x^3\end{aligned}$$

2. 55% of $\sqrt{2116} \div 0.01 = x \times 20$
 A) 124.5
 B) 126.5
 C) 132.5
 D) 133.5
 E) 139.5

View Answer**Option B****Solution:**

$$\begin{aligned}55/100 * 46/0.01 &= 20x \\ 55 * 46 &= 20x\end{aligned}$$

3. $\sqrt{(12^2 \times 16 \div 24 + 193 + 7 \times 5)} = x^2$
 A) $3\sqrt{2}$
 B) $2\sqrt{2}$
 C) $4\sqrt{2}$
 D) $5\sqrt{2}$
 E) None of these

View Answer**Option A****Solution:**

$$12*12*16/24 = 96$$

$$\begin{aligned}193 + 7 \times 5 &= 193 + 35 = 228 \\ \sqrt{(96+228)} &= x^2 \\ 18 &= x^2\end{aligned}$$

4. $\sqrt{31.36} \div \sqrt{0.64} \times 252 = x^2 \times 36$
 A) 11
 B) -8
 C) 49
 D) 81
 E) -7

View Answer**Option E****Solution:**

$$\begin{aligned}5.6/0.8 * 252 &= x^2 \times 36 \\ x^2 &= 49\end{aligned}$$

5. $(1.69)^4 \div (2197 \div 1000)^3 \times (0.13 \times 10)^3 = (1.3)^{x-2}$
 A) 2
 B) 5
 C) 3
 D) 4
 E) 0

View Answer**Option D****Solution:**

$$\begin{aligned}(1.69)^4 &= (1.3)^8 \\ (2.197)^3 &= (1.3)^9 \\ (1.3)^8 / (1.3)^9 * (1.3)^3 &= (1.3)^2 \\ (1.3)^2 &= (1.3)^{x-2} \\ 2 &= x-2, \text{ so } x = 4\end{aligned}$$

Directions: What approximate value should come in place of the x in the following questions? (You are expected to do approximations)

6. 68% of 1288 + 26% of 734 - 215 = x
 A) 820
 B) 850
 C) 735
 D) 825
 E) 780

View Answer

Option B

Solution:

$$68\% \text{ of } 1288 + 26\% \text{ of } 734 - 215 = x$$
$$875.84 + 190.84 - 215 = 852$$

7. $(32.05)^2 - (18.9)^2 - (11.9)^2 = x$
- A) 545
 - B) 615
 - C) 690
 - D) 665
 - E) 530

View Answer

Option E

Solution:

$$1027 - 357 - 144 = 526$$

8. $6578 \div 67 \times 15 = x \times 6$
- A) 320
 - B) 250
 - C) 340
 - D) 200
 - E) 230

View Answer

Option B

Solution:

$$6578 * 15 / 67 * 6 = 250$$

9. $679/45 \div 23/2130 \times 126/169 = x$
- A) 1090
 - B) 1060
 - C) 1040
 - D) 1080
 - E) 1050

View Answer

Option C

Solution:

$$680/45 * 2130/23 * 126/169 = 1043$$

10. $\sqrt{5687} \times \sqrt{1245} \div \sqrt{689} = x \div 13$
- A) 1320
 - B) 1340
 - C) 1305
 - D) 1365
 - E) 1345

View Answer

Option A

Solution:

$$74.4 * 35.2 * 13 / 26.2 = 1320$$