

simplification answers

QUE 1: Solution:

1). $(?)^3 + 141 = 14 \times 627 \div \sqrt{(1089)}$

$$= (14 \times 627) / 33 = 14 \times 19 = 266$$

$$\text{Or, } (?)^3 = 266 - 141 = 125$$

$$? = \sqrt[3]{(5 \times 5 \times 5)} = 5$$

Answer: d)

2). $[(?)^{1/3} / 4] = (129 + 105 - 27 - 17) / 30$

$$\text{Or, } (?)^{1/3} = (190/30) \times 4$$

$$? = (76/3)^3$$

Answer: e)

3). $(\sqrt{7} + 11)^2 = (?)^{1/3} + 2\sqrt{847} + 122$

$$\text{Or, } 7 + 22\sqrt{7} + 121 = (?)^{1/3} + 22\sqrt{7} + 122$$

$$\text{Or, } (?)^{1/3} = 128 - 122 = 6$$

$$? = 6 \times 6 \times 6 = 216$$

Answer: c)

4). $? = (81/4) \times (456/19) \times (793/61) = (81/4) \times 24 \times 13$

$$= 81 \times 6 \times 13 = 6318$$

Answer: a)

5).

Answer: c)

Que2.

6). $? = 184.96\% \text{ of } 4699.658 + 274.93\% \text{ of } 6279.88 - 648$

$$= (185/100) \times 4700 + (275/100) \times 6280 - 648$$

$$= 185 \times 47 + 200\% \text{ of } 6280 + 75\% \text{ of } 6280 - 648 =$$

$$8695 + 12560 + 4710 - 648$$

$$? = 8695 + 17270 - 648 = 25317 = 25320$$

Answer: b)

7). $? = 8789.879 \div 375.002 \times 24.996 + 6937.004$

$$= 8790 \div 375 \times 25 + 6937$$

$$= (8970/375) \times 25 + 6937 = (8970/15) + 6937 =$$

$$586 + 6937 = 7523 = 7525$$

Answer: d)

8). $(17.67)^2 + (16.87)^3 - (8.947)^3 \div 103.897 = ?$

$$\text{Or, } ? = (17.7)^2 + (16.9)^3 - (9)^3 \div 104$$

$$= 313.29 + 4826.809 - 729 \div 104$$

$$= 313 + 4827 - 7 = 5133 = 5130$$

Answer: c)

9). $2 \frac{3}{10} \times 5 \frac{6}{7} \times 7 \frac{1}{2} = ?$

$$= (23/10) \times (41/7) \times (15/2)$$

$$= 14155/140 = 101 = 100$$

Answer: d)

10). $47.03 \times 37.03 + 12.03 \times 2\sqrt{(34595)} = ?$

$$= 47 \times 37 + 12 \times 2 \times \sqrt{(34595)}$$

$$= 47 \times 37 + 12 \times 2 \times 186 = 1739 + 4464$$

$$= 6203 = 6200$$

Answer: a)

Que 3: Solution:

1). **B)** $? = \sqrt{2209} + \sqrt{361} - \sqrt{1296}$

$$= 47 + 19 - 36 = 30$$

2). **C)** $? = \{ [8 / (10 \times 100)] \times 3072 \} + [(12/100) \times 785] = 24.576 + 94.20 = 118.776$

3). **B)** $(16)^{21-?} = 16^{6.5} \times 16^{12.25}$

$$\text{or, } (16)^{21-?} = (16)^{6.5+12.25}$$

$$\text{or, } 21 - ? = 18.75$$

$$\text{or, } ? = 2.25$$

4). **D)** $27^{2.5} \times ((243)^3)^? = 3^{23.5}$

$$\text{or, } (3^3)^{2.5} \times ((3^5)^3)^? = 3^{23.5}$$

$$\text{or, } 3^{3 \times 2.5} \times 3^{5 \times 3 \times ?} = 3^{23.5}$$

$$\text{or } 15 \times ? = 23.5 - 7.5 = 16$$

$$? = 16 / 15 = 1.0667$$

5). **A)** $? = \sqrt[3]{175616} \times \sqrt{1936} + (36)^2$

$$56 \times 44 + 1296 = 2464 + 1296 = 3760$$

6). **A)** $? = [(4.15/100) \times 1400] + [(3.2/100) \times 1600] + (361)^{1/2}$

$$= 58.1 + 51.2 + 19$$

$$= 128.3$$

7). **D)** $(19/3) + (21/5) + (10/7) - (15/7) + (22/5) \times (10/3)$

$$= (19/3) + (21/5) + (10/7) - (15/7) + (44/3) =$$

$$[(19+44) / 3] + [(10 - 15) / 7] + (21/5)$$

$$= (63/3) + (-5/7) + (21/5) = 21 - (5/7) + (21/5)$$

$$= (735 - 25 + 147) / 35 = 857 / 35 = 24 \frac{17}{35}$$

8). **B).** $(56)^? = (8)^{4.2} \times 8^{4.2} \times 7^{8.4} \times (56)^{4.3}$

$$= (8^{8.4} \times 7^{8.4}) \times (56)^{4.3} = (56)^{8.4} \times (56)^{4.3}$$

$$= (56)^{(8.4+4.3)} = (56)^{12.7}$$

$$? = 12.7$$

9). **D)** $\sqrt{33124} \times \sqrt{2601} - 83^2 = ?^2 + 37^2$

$$= 182 \times 51 - 6889 = ?^2 + 1369$$

$$= 2393 = ?^2 + 1369$$

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$$= ?^2 = 2393 - 1369 = 1024$$

$$? = \sqrt{1024} = 32$$

10). B)

Que 4:

6). $? = 1.65\% \text{ of } 310 + 1.75\% \text{ of } 430$

$$= [(1.65 \times 310) / 100] + [(1.75 \times 430) / 100]$$

$$= 5.115 + 7.525 = 12.64$$

Answer: b)

7). $? = 30\% \text{ of } 2/7 \text{ of } 2/9 \text{ of } 2/5 \text{ of } 2/3 \text{ of } 9450$

$$= 30\% \text{ of } [(16/945) \times 9450]$$

$$= 30\% \text{ of } 160 = 48$$

Answer: d)

8). $361/? = ?/289$

$$(?)^2 = 361 \times 289$$

$$(?)^2 = (19)^2 \times (17)^2$$

$$? = 19 \times 17 = 323$$

Answer: c)

9). $15625 = (x^2)^3$

$$(x^2)^3 = 15625 = (5)^6$$

$$x^6 = 5^6$$

$$x = 5$$

Answer: c)

10). $(1/1024)^{-2/5} + (1/343)^{-2/3} = ? \times 5$

$$(1/4^5)^{-2/5} + (1/7^3)^{-2/3} = ? \times 5$$

$$4^2 + 7^2 = ? \times 5$$

$$16 + 49 = ? \times 5$$

$$65 = ? \times 5$$

$$? = 65/5 = 13$$

Answer: c)

Que 5: Explanation:

1). D) $(429.30) + [(15 \times ?) / 4] = 750.75$

$$? = (321.45 \times 400) / 15 = 8572$$

2). B) $(7.5/100) \times ? = 27 + 48 = 75$

$$? = (75 \times 100) / 7.5 = 1000$$

3). A) $49 + 9 + 6 = 64 = ((?)^2)^3$

$$\text{or, } (?)^6 = ((2)^2)^3$$

$$? = 2$$

4). D) $(4/13) \times (7/29) \times (5/7) \times ? = 1120$

$$? = 21112$$

5). B) $[455 \div (16 \times 11375) / 100] \times 2048 = (?)^3$

$$\text{or, } (?)^3 = (455 \div 1820) \times 2048$$

$$= (1/4) \times 2048 = 512 = 8^3$$

$$? = 8$$

Que 6:

6). A) $62.66\% \text{ of } 4995.60 - 32.30\% \text{ of } 6895.58 = (?)^2$

$$\text{or, } (?)^2 = 63\% \text{ of } 4996 - 32\% \text{ of } 6895$$

$$= 3147.48 - 2206.4 \approx 941$$

$$? = \sqrt{941} \approx 30.6 \approx 31$$

7). B) $\sqrt{?} \approx 47 + 17 = 64$

$$? = (64)^2 = 4096$$

8). A) $(29/143) \times (14.3/100) \times (37/300) \times ? = 28$

$$? = 7840$$

9). C) $\sqrt{?} \approx 21\% \text{ of } 425 + 17.5\% \text{ of } 136$

$$\sqrt{?} = 89.25 + 23.8 = 113.05 \approx 113$$

$$? = (113)^2 = 12769$$

10). D) $16.66\% \text{ of } ? = (\sqrt{3720} \div \sqrt{6560}) \times 224$

$$= (61 \div 81) \times 224 \approx 168$$

$$? = (168 \times 100) / 16.66 \approx 1008$$

Que 7: Solution:

Directions (Q. 1-5):

1). $? = (10/12) \times [(4/18) \times (18/8)] \div (12/14)$

$$= (10/12) \times (1/2) \times (14/12) = (140/288) \approx 0.5$$

Answer: b)

2). $? = [(15/100) \times 62.58] + [(20/100) \times 9.68]$

$$= [(15 \times 60) / 100] + [(20 \times 10) / 100] = 9 + 2 = 11$$

Answer: d)

3). $? = 543.28 \div 55 \approx 540 \div 55 \approx 10$

Answer: c)

4). $? = [(6/1.5) \times (22/0.5)] \div [(56/6) \times (42/10)]$

$$= (4 \times 44) \div 39.2 \approx (4 \times 44) / 40 = 4.4$$

Answer: e)

5). $? = (2.2)^2 + (6.4)^2 + (6)^2$

$$\approx (2)^2 + (6.5)^2 + (6)^2 = 4 + 42.25 + 36 = 82.25 \approx 82$$

Answer: c)

Que 8:

6). $? = [(6/4) \times (32/8) \times (6/16)] + [(6/16) \times$

$$(24/8) \times (36/4)]$$

$$= (9/4) + (81/8) = (99/8)$$

Answer: b)

7). $? = (6160 + 12320) / 660 = (18480 / 660) = 28$

Answer: e)

8). $? = (46195.5) / (1047 + 137.5)$

simplification answers

$$? = 46195.5/1184.5 = 39$$

Answer: d)

$$9). ? = [(10 \times 10 \times 10) / (4+4+4+4)] = 10000/16 = 62.5$$

Answer: c)

$$10). ? = (6/8) + (10/16) + (26/32) + (6/16) \\ = (24+20+26+12) / 32 = 82/32 = 41/16$$

Answer: e)

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