Name: _____
Date: _____ Score: ___ / 10

1. $2 \times (4 + 5) - 5$ = _____

2. $(5 + 4) \times 7$ = _____

WORKSPACE:

3. $4 \times (6 + 4) - 36$ = _____

WORKSPACE:

4. $(2 + 9) \times 5$ = _____

WORKSPACE:

5. $(4 + 4) \times 2$ = _____

WORKSPACE:

6. $(12 + 23) \div 5 + 8$ = _____

WORKSPACE:

7. $(7 + 7) \times 4$ = _____

WORKSPACE:

8. $(1 + 34) \div 5 + 7$ = _____

WORKSPACE:

9. $(2 - 1) \times 4 + 10$ = _____

WORKSPACE:

10. $(17 + 7) \div 6 + 9$ = _____

WORKSPACE:

1. $2 \times (4 + 5) - 5$ = 13

1. Parentheses: (4 + 5) = 9
2. Multiply: 2 × 9 = 18
3. Subtract: 18 − 5 = 13

2. $(5 + 4) \times 7$ = 63

1. Parentheses: (5 + 4) = 9
2. Multiply: 9 × 7 = 63

3. $4 \times (6 + 4) - 36$ = 4

1. Parentheses: (6 + 4) = 10
2. Multiply: 4 × 10 = 40
3. Subtract: 40 − 36 = 4

4. $(2 + 9) \times 5$ = 55

1. Parentheses: (2 + 9) = 11
2. Multiply: 11 × 5 = 55

5. $(4 + 4) \times 2$ = 16

1. Parentheses: (4 + 4) = 8
2. Multiply: 8 × 2 = 16

6. $(12 + 23) \div 5 + 8$ = 15

1. Parentheses: (12 + 23) = 35
2. Divide: 35 ÷ 5 = 7
3. Add: 7 + 8 = 15

7. $(7 + 7) \times 4$ = 56

1. Parentheses: (7 + 7) = 14
2. Multiply: 14 × 4 = 56

8. $(1 + 34) \div 5 + 7$ = 14

1. Parentheses: (1 + 34) = 35
2. Divide: 35 ÷ 5 = 7
3. Add: 7 + 7 = 14

9. $(2 - 1) \times 4 + 10$ = 14

1. Parentheses: (2 − 1) = 1
2. Multiply: 1 × 4 = 4
3. Add: 4 + 10 = 14

10. $(17 + 7) \div 6 + 9$ = 13

1. Parentheses: (17 + 7) = 24
2. Divide: 24 ÷ 6 = 4
3. Add: 4 + 9 = 13

Name: _____
Date: _____ Score: ___ / 10

1. 2^3 = _____

2. 6^3 = _____

WORKSPACE:

WORKSPACE:

3. 5^5 = _____

4. 5^3 = _____

WORKSPACE:

WORKSPACE:

5. 2^2 = _____

6. 5^4 = _____

WORKSPACE:

WORKSPACE:

7. 4^4 = _____

8. 9^3 = _____

WORKSPACE:

WORKSPACE:

9. 5^5 = _____

10. 3^5 = _____

WORKSPACE:

WORKSPACE:

1. 2^3 = 8

1. Base & Exponent: Base is 2, exponent is 3.
2. Repeated Multiplication: 2 × 2 × 2
3. Evaluate: 8 ✅

2. 6^3 = 216

1. Base & Exponent: Base is 6, exponent is 3.
2. Repeated Multiplication: 6 × 6 × 6
3. Evaluate: 216 ✅

3. 5^5 = 3125

1. Base & Exponent: Base is 5, exponent is 5.
2. Repeated Multiplication: 5 × 5 × 5 × 5 × 5
3. Evaluate: 3,125 ✅

4. 5^3 = 125

1. Base & Exponent: Base is 5, exponent is 3.
2. Repeated Multiplication: 5 × 5 × 5
3. Evaluate: 125 ✅

5. 2^2 = 4

1. Base & Exponent: Base is 2, exponent is 2.
2. Repeated Multiplication: 2 × 2
3. Evaluate: 4 ✅

6. 5^4 = 625

1. Base & Exponent: Base is 5, exponent is 4.
2. Repeated Multiplication: 5 × 5 × 5 × 5
3. Evaluate: 625 ✅

7. 4^4 = 256

1. Base & Exponent: Base is 4, exponent is 4.
2. Repeated Multiplication: 4 × 4 × 4 × 4
3. Evaluate: 256 ✅

8. 9^3 = 729

1. Base & Exponent: Base is 9, exponent is 3.
2. Repeated Multiplication: 9 × 9 × 9
3. Evaluate: 729 ✅

9. 5^5 = 3125

1. Base & Exponent: Base is 5, exponent is 5.
2. Repeated Multiplication: 5 × 5 × 5 × 5 × 5
3. Evaluate: 3,125 ✅

10. 3^5 = 243

1. Base & Exponent: Base is 3, exponent is 5.
2. Repeated Multiplication: 3 × 3 × 3 × 3 × 3
3. Evaluate: 243 ✅

Name: _____
Date: _____ Score: ___ / 10

1. $\sqrt{784}$ = _____

2. $\sqrt{1024}$ = _____

WORKSPACE:

WORKSPACE:

3. $\sqrt{36}$ = _____

4. $\sqrt{25}$ = _____

WORKSPACE:

WORKSPACE:

5. $\sqrt{169}$ = _____

6. $\sqrt{961}$ = _____

WORKSPACE:

WORKSPACE:

7. $\sqrt{625}$ = _____

8. $\sqrt{841}$ = _____

WORKSPACE:

WORKSPACE:

9. $\sqrt{400}$ = _____

10. $\sqrt{900}$ = _____

WORKSPACE:

WORKSPACE:

1. $\sqrt{784}$ = 28

1. Prime Factorize: 784 = $2^4 \times 7^2$
2. Group into Pairs: $\sqrt{(2^4 \times 7^2)} = 2^2 \times 7$
3. Calculate: $2^2 \times 7 = 28$ ✅

2. $\sqrt{1024}$ = 32

1. Prime Factorize: 1024 = 2^{10}
2. Group into Pairs: $\sqrt{(2^{10})} = 2^5$
3. Calculate: $2^5 = 32$ ✅

3. $\sqrt{36}$ = 6

1. Benchmark Fact: $6^2 = 6 \times 6 = 36$
2. Apply Radical: $\sqrt{(36)} = \sqrt{(6^2)} = 6$
3. Value: $\sqrt{36} = 6$ ✅

4. $\sqrt{25}$ = 5

1. Benchmark Fact: $5^2 = 5 \times 5 = 25$
2. Apply Radical: $\sqrt{(25)} = \sqrt{(5^2)} = 5$
3. Value: $\sqrt{25} = 5$ ✅

5. $\sqrt{169}$ = 13

1. Prime Identity: 13 is prime; $13^2 = 13 \times 13 = 169$
2. Apply Radical: $\sqrt{(169)} = 13$
3. Value: $\sqrt{169} = 13$ ✅

6. $\sqrt{961}$ = 31

1. Prime Identity: 31 is prime; $31^2 = 31 \times 31 = 961$
2. Apply Radical: $\sqrt{(961)} = 31$
3. Value: $\sqrt{961} = 31$ ✅

7. $\sqrt{625}$ = 25

1. Prime Factorize: 625 = 5^4
2. Group into Pairs: $\sqrt{(5^4)} = 5^2$
3. Calculate: $5^2 = 25$ ✅

8. $\sqrt{841}$ = 29

1. Prime Identity: 29 is prime; $29^2 = 29 \times 29 = 841$
2. Apply Radical: $\sqrt{(841)} = 29$
3. Value: $\sqrt{841} = 29$ ✅

9. $\sqrt{400}$ = 20

1. Prime Factorize: 400 = $2^4 \times 5^2$
2. Group into Pairs: $\sqrt{(2^4 \times 5^2)} = 2^2 \times 5$
3. Calculate: $2^2 \times 5 = 20$ ✅

10. $\sqrt{900}$ = 30

1. Prime Factorize: 900 = $2^2 \times 3^2 \times 5^2$
2. Group into Pairs: $\sqrt{(2^2 \times 3^2 \times 5^2)} = 2 \times 3 \times 5$
3. Calculate: $2 \times 3 \times 5 = 30$ ✅

Name: _____
Date: _____ Score: ___ / 10

1. 2^2 = _____

2. 10^2 = _____

WORKSPACE:

WORKSPACE:

3. 4^2 = _____

4. 7^2 = _____

WORKSPACE:

WORKSPACE:

5. 6^3 = _____

6. 3^3 = _____

WORKSPACE:

WORKSPACE:

7. 9^3 = _____

8. 7^3 = _____

WORKSPACE:

WORKSPACE:

9. 3^2 = _____

10. 16^2 = _____

WORKSPACE:

WORKSPACE:

1. 2^2 = 4

1. Base & Power: Base is 2, exponent is 2 (Square).
2. Expanded Form: $2^2 = 2 \times 2$
3. Multiply: $2 \times 2 = 4$ ✅

2. 10^2 = 100

1. Base & Power: Base is 10, exponent is 2 (Square).
2. Expanded Form: $10^2 = 10 \times 10$
3. Multiply: $10 \times 10 = 100$ ✅

3. 4^2 = 16

1. Base & Power: Base is 4, exponent is 2 (Square).
2. Expanded Form: $4^2 = 4 \times 4$
3. Multiply: $4 \times 4 = 16$ ✅

4. 7^2 = 49

1. Base & Power: Base is 7, exponent is 2 (Square).
2. Expanded Form: $7^2 = 7 \times 7$
3. Multiply: $7 \times 7 = 49$ ✅

5. 6^3 = 216

1. Base & Power: Base is 6, exponent is 3 (Cube).
2. Expanded Form: $6^3 = 6 \times 6 \times 6$
3. Partial Product: $6^2 = 36 \rightarrow 36 \times 6 = 216$ ✅

6. 3^3 = 27

1. Base & Power: Base is 3, exponent is 3 (Cube).
2. Expanded Form: $3^3 = 3 \times 3 \times 3$
3. Partial Product: $3^2 = 9 \rightarrow 9 \times 3 = 27$ ✅

7. 9^3 = 729

1. Base & Power: Base is 9, exponent is 3 (Cube).
2. Expanded Form: $9^3 = 9 \times 9 \times 9$
3. Partial Product: $9^2 = 81 \rightarrow 81 \times 9 = 729$ ✅

8. 7^3 = 343

1. Base & Power: Base is 7, exponent is 3 (Cube).
2. Expanded Form: $7^3 = 7 \times 7 \times 7$
3. Partial Product: $7^2 = 49 \rightarrow 49 \times 7 = 343$ ✅

9. 3^2 = 9

1. Base & Power: Base is 3, exponent is 2 (Square).
2. Expanded Form: $3^2 = 3 \times 3$
3. Multiply: $3 \times 3 = 9$ ✅

10. 16^2 = 256

1. Base & Power: Base is 16, exponent is 2 (Square).
2. Expanded Form: $16^2 = 16 \times 16$
3. Multiply: $16 \times 16 = 256$ ✅