Name: _____
Date: _____ Score: ___ / 10

1. **3 × 9** = _____

2. **4 × 1** = _____

WORKSPACE:

WORKSPACE:

3. **4 × 2** = _____

4. **0 × 9** = _____

WORKSPACE:

WORKSPACE:

5. **4 × 8** = _____

6. **2 × 8** = _____

WORKSPACE:

WORKSPACE:

7. **0 × 10** = _____

8. **1 × 7** = _____

WORKSPACE:

WORKSPACE:

9. **2 × 4** = _____

10. **5 × 3** = _____

WORKSPACE:

WORKSPACE:

1. **3 × 9** = 27

1. Multiplication Fact: 3 × 9 = 27
2. Double + 1 Group Strategy: (2 × 9) + 9 = 18 + 9 = 27.
3. Repeated Addition: 9 + 9 + 9 = 27 ✅

2. **4 × 1** = 4

1. Multiplication Fact: 4 × 1 = 4
2. Identity Property: Any number multiplied by 1 equals itself (1 × 4 = 4).
3. Verification: 1 group of 4 is 4 ✅

3. **4 × 2** = 8

1. Multiplication Fact: 4 × 2 = 8
2. Doubles Strategy: Multiplying by 2 means adding the number to itself.
3. Repeated Addition: 4 + 4 = 8 ✅

4. **0 × 9** = 0

1. Multiplication Fact: 0 × 9 = 0
2. Zero Property: Any number multiplied by 0 equals 0 (9 × 0 = 0).
3. Verification: 0 groups of any size contain zero items ✅

5. **4 × 8** = 32

1. Multiplication Fact: 4 × 8 = 32
2. Double-Double Strategy: Double 8 is 16, and Double 16 is 32.
3. Group Decomposition: (2 × 8) + (2 × 8) = 16 + 16 = 32 ✅

6. **2 × 8** = 16

1. Multiplication Fact: 2 × 8 = 16
2. Doubles Strategy: Multiplying by 2 means adding the number to itself.
3. Repeated Addition: 8 + 8 = 16 ✅

7. **0 × 10** = 0

1. Multiplication Fact: 0 × 10 = 0
2. Zero Property: Any number multiplied by 0 equals 0 (10 × 0 = 0).
3. Verification: 0 groups of any size contain zero items ✅

8. **1 × 7** = 7

1. Multiplication Fact: 1 × 7 = 7
2. Identity Property: Any number multiplied by 1 equals itself (1 × 7 = 7).
3. Verification: 1 group of 7 is 7 ✅

9. **2 × 4** = 8

1. Multiplication Fact: 2 × 4 = 8
2. Doubles Strategy: Multiplying by 2 means adding the number to itself.
3. Repeated Addition: 4 + 4 = 8 ✅

10. **5 × 3** = 15

1. Multiplication Fact: 5 × 3 = 15
2. Double + 1 Group Strategy: (2 × 5) + 5 = 10 + 5 = 15.
3. Repeated Addition: 5 + 5 + 5 = 15 ✅

Name: _____
Date: _____ Score: ___ / 10

1. **8 × 3** = _____

2. **9 × 7** = _____

WORKSPACE:

WORKSPACE:

3. **8 × 2** = _____

4. **7 × 2** = _____

WORKSPACE:

WORKSPACE:

5. **7 × 7** = _____

6. **10 × 10** = _____

WORKSPACE:

WORKSPACE:

7. **9 × 10** = _____

8. **9 × 5** = _____

WORKSPACE:

WORKSPACE:

9. **6 × 7** = _____

10. **10 × 9** = _____

WORKSPACE:

WORKSPACE:

1. **8 × 3** = 24

1. Problem: 8 × 3 = ?
2. Double-Double-Double Strategy: 8 = 2 × 2 × 2. Double 3 three times.
3. Steps: 3 × 2 = 6 ➔ 6 × 2 = 12 ➔ 12 × 2 = 24 ✅

2. **9 × 7** = 63

1. Problem: 9 × 7 = ?
2. 10 Minus 1 Group Strategy: 9 × 7 = (10 × 7) - 7.
3. Calculation: 70 - 7 = 63 (Digit sum: 6 + 3 = 9) ✅

3. **8 × 2** = 16

1. Problem: 8 × 2 = ?
2. Double-Double-Double Strategy: 8 = 2 × 2 × 2. Double 2 three times.
3. Steps: 2 × 2 = 4 ➔ 4 × 2 = 8 ➔ 8 × 2 = 16 ✅

4. **7 × 2** = 14

1. Problem: 7 × 2 = ?
2. Distributive Break-Apart Strategy (5 + 2): 7 × 2 = (5 × 2) + (2 × 2).
3. Calculation: (10) + (4) = 14 = 14 ✅

5. **7 × 7** = 49

1. Problem: 7 × 7 = ?
2. Distributive Break-Apart Strategy (5 + 2): 7 × 7 = (5 × 7) + (2 × 7).
3. Calculation: (35) + (14) = 49 = 49 ✅

6. **10 × 10** = 100

1. Problem: 10 × 10 = ?
2. Place Value Rule: Multiplying by 10 shifts digits one position left (10 tens).
3. Calculation: 10 × 10 = 100 ✅

7. **9 × 10** = 90

1. Problem: 9 × 10 = ?
2. 10 Minus 1 Group Strategy: 9 × 10 = (10 × 10) - 10.
3. Calculation: 100 - 10 = 90 (Digit sum: 9 + 0 = 9) ✅

8. **9 × 5** = 45

1. Problem: 9 × 5 = ?
2. 10 Minus 1 Group Strategy: 9 × 5 = (10 × 5) - 5.
3. Calculation: 50 - 5 = 45 (Digit sum: 4 + 5 = 9) ✅

9. **6 × 7** = 42

1. Problem: 6 × 7 = ?
2. Double the Threes Strategy: 6 = 2 × 3. First find 3 × 7, then double.
3. Steps: 3 × 7 = 21, and 2 × 21 = 42 ✅

10. **10 × 9** = 90

1. Problem: 10 × 9 = ?
2. Place Value Rule: Multiplying by 10 shifts digits one position left (9 tens).
3. Calculation: 9 × 10 = 90 ✅

Name: _____
Date: _____ Score: ___ / 10

1. **1 × 1** = _____

2. **4 × 8** = _____

WORKSPACE:

WORKSPACE:

3. **5 × 8** = _____

4. **4 × 6** = _____

WORKSPACE:

WORKSPACE:

5. **7 × 10** = _____

6. **2 × 8** = _____

WORKSPACE:

WORKSPACE:

7. **2 × 4** = _____

8. **7 × 8** = _____

WORKSPACE:

WORKSPACE:

9. **9 × 6** = _____

10. **5 × 1** = _____

WORKSPACE:

WORKSPACE:

1. **1 × 1** = 1

1. Identity Property: Any number multiplied by 1 equals itself.
2. 1 × 1 = 1 ✅

2. **4 × 8** = 32

1. Distributive Decomposition: Break 8 into 5 + 3 → (4 × 5) + (4 × 3)
2. Partial Products: 20 + 12
3. Add: 20 + 12 = 32 ✅

3. **5 × 8** = 40

1. Half-of-Ten Strategy: (8 × 10) ÷ 2 = 80 ÷ 2
2. Divide: 80 ÷ 2 = 40 ✅

4. **4 × 6** = 24

1. Distributive Decomposition: Break 6 into 5 + 1 → (4 × 5) + (4 × 1)
2. Partial Products: 20 + 4
3. Add: 20 + 4 = 24 ✅

5. **7 × 10** = 70

1. Place Value Shift: Shift 7 one place to the left and append 0.
2. 7 × 10 = 70 ✅

6. **2 × 8** = 16

1. Doubling Strategy: Double of 8 is 8 + 8
2. 2 × 8 = 16 ✅

7. **2 × 4** = 8

1. Doubling Strategy: Double of 4 is 4 + 4
2. 2 × 4 = 8 ✅

8. **7 × 8** = 56

1. Distributive Decomposition: Break 8 into 5 + 3 → (7 × 5) + (7 × 3)
2. Partial Products: 35 + 21
3. Add: 35 + 21 = 56 ✅

9. **9 × 6** = 54

1. Landmark 10s Strategy: (6 × 10) - 6 = 60 - 6
2. Subtract: 60 - 6 = 54 ✅

10. **5 × 1** = 5

1. Identity Property: Any number multiplied by 1 equals itself.
2. 5 × 1 = 5 ✅

Name: _____
Date: _____ Score: ___ / 10

1. **11 × 5** = _____

2. **4 × 9** = _____

WORKSPACE:

3. **6 × 8** = _____

WORKSPACE:

4. **11 × 11** = _____

WORKSPACE:

5. **5 × 11** = _____

WORKSPACE:

6. **9 × 1** = _____

WORKSPACE:

7. **12 × 9** = _____

WORKSPACE:

8. **10 × 5** = _____

WORKSPACE:

9. **5 × 10** = _____

WORKSPACE:

10. **8 × 9** = _____

WORKSPACE:

1. **11 × 5** = 55

1. Half-of-Ten Strategy: (11 × 10) ÷ 2 = 110 ÷ 2
2. Divide: 110 ÷ 2 = 55 ✅

2. **4 × 9** = 36

1. Landmark 10s Strategy: (4 × 10) - 4 = 40 - 4
2. Subtract: 40 - 4 = 36 ✅

3. **6 × 8** = 48

1. Distributive Decomposition: Break 8 into 5 + 3 ➔ (6 × 5) + (6 × 3)
2. Partial Products: 30 + 18
3. Add: 30 + 18 = 48 ✅

4. **11 × 11** = 121

1. Distributive Decomposition: Break 11 into 5 + 6 ➔ (11 × 5) + (11 × 6)
2. Partial Products: 55 + 66
3. Add: 55 + 66 = 121 ✅

5. **5 × 11** = 55

1. Half-of-Ten Strategy: (11 × 10) ÷ 2 = 110 ÷ 2
2. Divide: 110 ÷ 2 = 55 ✅

6. **9 × 1** = 9

1. Identity Property: Any number multiplied by 1 equals itself.
2. 9 × 1 = 9 ✅

7. **12 × 9** = 108

1. Landmark 10s Strategy: (12 × 10) - 12 = 120 - 12
2. Subtract: 120 - 12 = 108 ✅

8. **10 × 5** = 50

1. Place Value Shift: Shift 5 one place to the left and append 0.
2. 10 × 5 = 50 ✅

9. **5 × 10** = 50

1. Place Value Shift: Shift 5 one place to the left and append 0.
2. 5 × 10 = 50 ✅

10. **8 × 9** = 72

1. Landmark 10s Strategy: (8 × 10) - 8 = 80 - 8
2. Subtract: 80 - 8 = 72 ✅