

Multiplying Two Two-Digit Numbers

Name: _____

Date: _____

Score: _____ / 24

Q Quick Review

To multiply two two-digit numbers, break the bottom number into its **ones** and **tens**. First multiply the top number by the ones digit. Then multiply the top number by the tens digit — and because that digit really means tens, write its product one place to the left (or put a 0 in the ones spot). Finally, **add** the two partial products together. For example, 42×18 is $(42 \times 8) + (42 \times 10)$. Estimating with rounded numbers helps you check your work.

◇ **Example:** Find 42×18 .

⇒ Split 18 into 8 ones and 1 ten. First multiply by the ones: $42 \times 8 = 336$. Next multiply by the tens: $42 \times 1 = 42$, but that 1 is really 10, so the partial product is 420. Now add the two partial products: $336 + 420 = 756$. Check by estimating: $40 \times 20 = 800$, which is close to 756 — great!

Answer: 756

PRACTICE

Multiply. Find each partial product, then add them.

- | | | | |
|--------------------|-------|--------------------|-------|
| 1. 12×14 | _____ | 11. 28×45 | _____ |
| 2. 23×15 | _____ | 12. 37×52 | _____ |
| 3. 31×22 | _____ | 13. 48×26 | _____ |
| 4. 42×18 | _____ | 14. 56×38 | _____ |
| 5. 25×36 | _____ | 15. 64×29 | _____ |
| 6. 34×27 | _____ | 16. 73×41 | _____ |
| 7. 46×23 | _____ | 17. 85×17 | _____ |
| 8. 53×19 | _____ | 18. 92×34 | _____ |
| 9. 62×24 | _____ | 19. 58×47 | _____ |
| 10. 71×33 | _____ | 20. 67×53 | _____ |

◆ Word Problems

21. A classroom has 24 rows of chairs with 16 chairs in each row. How many chairs are in the classroom? _____
22. A garden has 35 rows of tomato plants with 28 plants in each row. How many tomato plants are there? _____
23. A store sells packs of stickers. Each pack has 48 stickers, and the store sells 52 packs. How many stickers is that? _____
24. A school collects 75 cans of food from each of its 36 classrooms. How many cans does the school collect in all? _____



Answer Keys

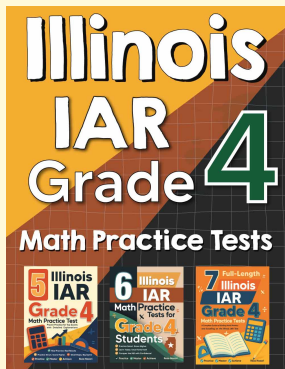
- | | |
|-----------|--------------------|
| 1. 168 | 13. 1,248 |
| 2. 345 | 14. 2,128 |
| 3. 682 | 15. 1,856 |
| 4. 756 | 16. 2,993 |
| 5. 900 | 17. 1,445 |
| 6. 918 | 18. 3,128 |
| 7. 1,058 | 19. 2,726 |
| 8. 1,007 | 20. 3,551 |
| 9. 1,488 | 21. 384 chairs |
| 10. 2,343 | 22. 980 plants |
| 11. 1,260 | 23. 2,496 stickers |
| 12. 1,924 | 24. 2,700 cans |

Step-by-Step Explanations

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| <p>1. $12 \times 4 = 48$ and $12 \times 10 = 120$. Add: $48 + 120 = 168$.</p> <p>2. $23 \times 5 = 115$ and $23 \times 10 = 230$. Add: $115 + 230 = 345$.</p> <p>3. $31 \times 2 = 62$ and $31 \times 20 = 620$. Add: $62 + 620 = 682$.</p> <p>4. $42 \times 8 = 336$ and $42 \times 10 = 420$. Add: $336 + 420 = 756$.</p> <p>5. $25 \times 6 = 150$ and $25 \times 30 = 750$. Add: $150 + 750 = 900$.</p> <p>6. $34 \times 7 = 238$ and $34 \times 20 = 680$. Add: $238 + 680 = 918$.</p> <p>7. $46 \times 3 = 138$ and $46 \times 20 = 920$. Add: $138 + 920 = 1,058$.</p> <p>8. $53 \times 9 = 477$ and $53 \times 10 = 530$. Add: $477 + 530 = 1,007$.</p> <p>9. $62 \times 4 = 248$ and $62 \times 20 = 1,240$. Add: $248 + 1,240 = 1,488$.</p> <p>10. $71 \times 3 = 213$ and $71 \times 30 = 2,130$. Add: $213 + 2,130 = 2,343$.</p> <p>11. $28 \times 5 = 140$ and $28 \times 40 = 1,120$. Add: $140 + 1,120 = 1,260$.</p> <p>12. $37 \times 2 = 74$ and $37 \times 50 = 1,850$. Add: $74 + 1,850 = 1,924$.</p> | <p>13. $48 \times 6 = 288$ and $48 \times 20 = 960$. Add: $288 + 960 = 1,248$.</p> <p>14. $56 \times 8 = 448$ and $56 \times 30 = 1,680$. Add: $448 + 1,680 = 2,128$.</p> <p>15. $64 \times 9 = 576$ and $64 \times 20 = 1,280$. Add: $576 + 1,280 = 1,856$.</p> <p>16. $73 \times 1 = 73$ and $73 \times 40 = 2,920$. Add: $73 + 2,920 = 2,993$.</p> <p>17. $85 \times 7 = 595$ and $85 \times 10 = 850$. Add: $595 + 850 = 1,445$.</p> <p>18. $92 \times 4 = 368$ and $92 \times 30 = 2,760$. Add: $368 + 2,760 = 3,128$.</p> <p>19. $58 \times 7 = 406$ and $58 \times 40 = 2,320$. Add: $406 + 2,320 = 2,726$.</p> <p>20. $67 \times 3 = 201$ and $67 \times 50 = 3,350$. Add: $201 + 3,350 = 3,551$.</p> <p>21. Multiply rows by chairs per row: $24 \times 16 = 384$ chairs.</p> <p>22. Multiply rows by plants per row: $35 \times 28 = 980$ plants.</p> <p>23. Multiply stickers per pack by packs sold: $48 \times 52 = 2,496$ stickers.</p> <p>24. Multiply cans per classroom by classrooms: $75 \times 36 = 2,700$ cans.</p> |
|--|--|



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