Multiplicative Comparison

Apply the skill to decisions and designs

Name _____ **Date** _____ **Score** _____ / 8

QUICK REVIEW

4 times as many as 6 means 4 equal groups of 6: $4 \times 6 = 24$, not $4 + 6$. To find the factor, use $24 \div 6 = 4$.

Worked example

B is 3 times A. If $A = 7$, find B and check the comparison.

1. Three equal groups give $7 + 7 + 7 = 21$.
2. The comparison equation is $3 \times 7 = 21$.
3. Check the factor: $21 \div 7 = 3$.
Answer: $B = 21$.

Practice Problems

Show your thinking.

1. Design a pair of bead strings: the short one has 6 beads; the long one is 4 times as long. Give both counts.

2. A chart shows 45 votes for A and 5 for B. How many times B is A?

3. A sign says 6 times as many and shows 7 small dots and 13 large dots. Fix the large count.

4. Choose the small stack size when a 56-block tower is 7 times that size.

5. Which comparison is larger: 2 times 12 or 5 times 5? By how much?

6. Use the blank parts to model a value 3 times as large as 9. Write its value.



7. A 10-cm strip and a 50-cm strip are compared. Give both the times and the extra-length comparisons.

8. A 3-part bar totals 18. Make a new bar 5 times one part. Find the new total.

Answer Key

1. 6 beads and 24 beads.
2. 9.
3. 42 large dots.
4. 8 blocks.
5. 5 times 5 is larger by 1.
6. 27.
7. 5 times as long; 40 cm longer.
8. 30.

Step-by-Step Solutions

Follow each calculation, then check your own work.

Problem 1

1. Use 6 beads as one equal group.
2. $4 \times 6 = 24$ beads belong on the long string.
3. $24 \div 6 = 4$ verifies the design.

Problem 2

1. Each group of 5 votes matches B.
2. $45 \div 5 = 9$ equal groups fit in A.
3. Check: $9 \times 5 = 45$ votes.

Problem 3

1. $7 + 6 = 13$ explains the mistaken additive count.
2. Six equal groups need $6 \times 7 = 42$ dots.
3. $42 \div 7 = 6$ checks the corrected sign.

Problem 4

1. $7 \times \square = 56$.
2. $56 \div 7 = 8$ blocks per small stack.
3. $7 \times 8 = 56$ checks the tower.

Problem 5

1. $2 \times 12 = 24$.
2. $5 \times 5 = 25$.
3. $25 - 24 = 1$, so the second comparison is larger.

Problem 6

1. Label each of the 3 parts 9.
2. $9 + 9 + 9 = 27$.
3. $27 \div 9 = 3$ checks the model.

Problem 7

1. $50 \div 10 = 5$ gives the multiplicative factor.
2. $50 - 10 = 40$ cm gives the added length.
3. $5 \times 10 = 50$ and $10 + 40 = 50$ check both descriptions.

Problem 8

1. One equal part is $18 \div 3 = 6$.
2. Five parts total $5 \times 6 = 30$.
3. $30 \div 6 = 5$ checks the new factor.

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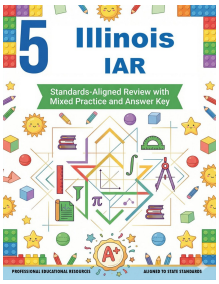

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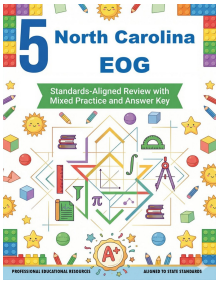

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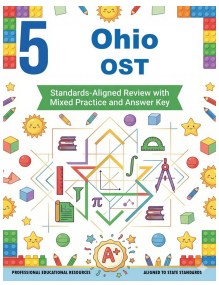

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