

Intervention Checklist

GRADES
3 and Up

Operations and Algebraic Thinking:
Multiplication and Division

Category I: Approaches to Solving Multiplication and Division Situational Word Problems

| Category I | <p>1. <i>Mary has 5 bags with 6 cookies in each bag. How many cookies does she have altogether?</i></p> <p>Equal Group Multiplication, solving for an unknown product</p> | <p>2. <i>The classroom has 6 rows of desks and each row has 7 desks. How many desks are in the classroom?</i></p> <p>Array/Area Multiplication, solving for an unknown product</p> | <p>3. <i>Jean has 18 pieces of candy. She wants to put 3 pieces of candy into each treat bag. If Jean wants to put all of her candy into treat bags, how many treat bags does Jean need?</i></p> <p>Equal Group Division, solving for an unknown number of groups</p> | <p>4. <i>Jean has 48 inches of rope. She cuts the entire rope into pieces that are 6 inches long. How many 6-inch pieces does she have?</i></p> <p>Equal Group Measurement Division, solving for an unknown number of groups</p> | <p>5. <i>Janice has 64 pieces of candy. She arranges them in a box with 8 pieces of candy per row. How many rows of candy will there be?</i></p> <p>Array/Area Division, solving for an unknown number of groups</p> |
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| Makes Sense | <input type="checkbox"/> Makes sense of situations <input type="checkbox"/> Identifies what is to be figured out | <input type="checkbox"/> Makes sense of situations <input type="checkbox"/> Identifies what is to be figured out | <input type="checkbox"/> Makes sense of situations <input type="checkbox"/> Identifies what is to be figured out | <input type="checkbox"/> Makes sense of situations <input type="checkbox"/> Identifies what is to be figured out | <input type="checkbox"/> Makes sense of situations <input type="checkbox"/> Identifies what is to be figured out |
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To look across all 10 items of Category I, affix page 2 of the Category I checklist here.

Category I: Approaches to Solving Multiplication and Division Situational Word Problems (continued)

| Category I | 6. Jake has 24 stuffed animals. He puts an equal number of stuffed animals into each of 6 rooms in his house. How many stuffed animals go into each room? Equal Group Division, solving for an unknown amount in each group | 7. Marshall is making wreath bows. He uses 45 inches of ribbon to make 5 bows that are the same size. How many inches of ribbon does he use for each of the bows? Equal Group Measurement Division, solving for an unknown amount in each group | 8. There are 32 cans of soup stacked into 4 columns. How many cans of soup are in each stacked column? Array/Area Division, solving for an unknown amount in each group | For students in Grade 4 and up 9. Sam has 12 pencils. Sam's brother has 3 times as many pencils as Sam. How many pencils does Sam's brother have altogether? Compare Multiplication, solving for an unknown product | For students in Grade 4 and up 10. An un-stretched rubber band is 7 centimeters long. When it is stretched it is 49 centimeters long. How many times shorter is the rubber band when it is not stretched than when it is stretched? Compare Measurement Division, solving for the unknown scale factor |
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Category II: Interpreting Multiplication and Division Equations and Visual Models

| Category II | 11. Select the model(s) for 4×8 . How does each selected model show 4×8 ? | | | | | 12. Select the model(s) for $54 \div 9$. How does each selected model show $54 \div 9$? | | | |
|-------------------------|--|--|--|--|---|--|--|--|---|
| | a. <i>Model shows 4 groups with 8 items in each group shows 32 items.</i> | b. <i>Model shows 4 rows with 8 items in each row OR 8 columns with 4 items in each column</i> | c. <i>Model shows 4 jumps each with 8 units in each jump</i> | d. <i>Model shows 8 groups with 6 items per group</i> | <i>For students in Grade 4 and up</i> e. <i>Model shows 8 and 32 are the two amounts/sets being compared; 1 set has 8 and the other set has 4 times as many, so it has 4 groups of 8</i> | a. <i>Model shows 54 inches of string cut into 6 pieces that are each 9 inches long</i> | b. <i>Model shows 54 is divided into 9 groups (plates) and each group (plate) has 6 items</i> | c. <i>Model shows 54 items in 6 columns with 9 items per (in each) column OR 54 items in 9 rows with 6 items per row</i> | <i>For students in Grade 4 and up</i> d. <i>Model shows 9 and 54 are the two amounts/sets being compared; 9 is 6 times fewer than 54 OR 54 is 6 times more than 9</i> |
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Category III: Approaches to Solving Multiplication and Division Situational Word Problems—One- and Two-Digit Factors

| Category I | 13. <i>The theater has 24 rows of seats. There are 9 seats in each row. How many seats are in the theater?</i> Array/Area Multiplication, solving for an unknown product | 14. <i>Lakeesha has 13 pieces of ribbon. Each ribbon is 18 inches in length. How many inches of ribbon does Lakeesha have altogether?</i> Equal Group Measurement Multiplication, solving for an unknown product | 15. <i>Deshawn puts 95 stamps into his stamp book. He puts 5 stamps onto each page. How many pages did he use for his 95 stamps?</i> Equal Group Division, solving for an unknown number of groups | 16. <i>Laurie has 168 pieces of candy. She arranges them on a tray into 12 rows. How many pieces of candy are in each row?</i> Array/Area Division, solving for an unknown amount in each group | 17. <i>A sports video game costs \$58.00. A math video game costs 5 times as much as the sports video game costs. How much does the math video game cost?</i> Compare Multiplication, solving for an unknown product |
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Category III: Approaches to Solving Multiplication and Division Situational Word Problems—One- and Two-Digit Factors (continued)

| Category I | 18. <i>John has 34 points in math. Jeanne has 6 times more points than John. How many points does Jeanne have?</i> Compare Multiplication, solving for an unknown product | 19. <i>A trip from your house to the shopping center is 68 miles. A trip from your house to the movie is 17 miles. How many times further away is the shopping center than the movie theater from your house?</i> Compare Measurement Division, solving for the unknown multiplier/scalar factor | 20. <i>A sweater costs \$78.00 and a shirt costs \$13.00. How many times as much does the sweater cost than the shirt?</i> Compare Measurement, solving for the unknown multiplier/scalar factor | 21. <i>Fred has 261 baseball cards. Sam has 3 times fewer baseball cards than Fred does. How many baseball cards does Sam have?</i> Compare Measurement, solving for an unknown referent set, a factor |
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