Equal Groups and Turnaround Facts

Use equal groups and arrays to represent a product. Four rows of six give 4 x 6 = 24; rotating the array gives 6 x 4 = 24. Explain what each factor represents before using the turnaround fact.

1. Draw 3 rows of 8 and find the total.

2. Find 8 x 3 and explain how it relates to 3 x 8.

3. Seven bags contain 4 counters each. How many counters?

4. Find 0 x 6 and explain using equal groups.

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Break Apart a Factor

Use a known fact to find an unknown one. For 7 x 6, split 7 into 5 and 2: (5 x 6) + (2 x 6) = 30 + 12 = 42. Both smaller products must use the same group size.

1. Use 5 x 8 and 2 x 8 to find 7 x 8.

2. Use 5 x 4 and 3 x 4 to find 8 x 4.

3. Split 9 x 6 into 5 x 6 and 4 x 6. Find the product.

4. Explain why both partial products are added.

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Use Related Division Facts

Multiplication and division are inverse relationships. From 6 x 8 = 48, find 48 / 6 = 8 and 48 / 8 = 6. Interpret the quotient as a number of groups or a number in each group.

1. Find 42 / 7 and write a related multiplication fact.

2. Find 54 / 6 and check.

3. Pack 32 crayons in boxes of 4. How many boxes?

4. Share 35 counters equally among 5 learners. How many each?

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Mixed Facts and Reasonableness

Choose a strategy, calculate accurately, and check with a related fact or model. Fluency means accurate, efficient and flexible work; speed alone does not show understanding.

1. Find 9 x 7 using a known fact.

2. Find 63 / 9 and check.

3. A learner says 8 x 6 = 42. Check and correct the claim.

4. Four tables seat 6 each; 5 seats are empty. How many people are seated?

Independent Fluency Check

Complete the following without a fact chart. A teacher may read directions but should not supply strategies. Record accuracy, strategy and efficiency privately; repeat later with different facts.

1. 6 x 7

2. 8 x 9

3. 56 / 8

4. A number divided by 7 is 8. Find the number and explain.