|  |  |  |  |
| --- | --- | --- | --- |
|  | **Unknown Product** | **Group Size Unknown****“How many in each group?”****Division** | **Number of Groups Unknown** **“How many groups?”** **Division** |
| **3 × 6 =?** | **3 ×? = 18, and 18 ÷ 3 =?** | **? × 6 = 18, and 18 ÷ 6?** |
| **EQUAL GROUPS****Introduced in Gr 3.** | There are 3 bags with 6 plums in each bag. How many plums are there in all? *Measurement example*. You need 3 lengths of string, each 6 inches long. How much string will you need altogether?  | If 18 plums are shared equally into 3 bags, then how many plums will be in each bag? *Measurement example*. You have 18 inches of string, which you will cut into 3 equal pieces. How long will each piece of string be?  | If 18 plums are to be packed 6 to a bag, then how many bags are needed? *Measurement example*. You have 18 inches of string, which you will cut into pieces that are 6 inches long. How many pieces of string will you have?  |
| **Arrays,****Area****Introduced in Gr 3.** | There are 3 rows of apples with 6 apples in each row. How many apples are there? *Area example*. What is the area of a 3 cm by 6 cm rectangle?  | If 18 apples are arranged into 3 equal rows, how many apples will be in each row? *Area example*. A rectangle has an area of 18 square centimeters. If one side is 3 cm long, how long is a side next to it?  | If 18 apples are arranged into equal rows of 6 apples, how many rows will there be? *Area example*. A rectangle has an area of 18 square centimeters. If one side is 6 cm long, how long is a side next to it?  |
| **Compare****NOTES: Multiplicative Compare problems first appear in grade 4 with whole number values.** **In grade 5, unit fractions may be used.**  | A blue hat costs $6. A red hat costs 3 times as much as the blue hat. How much does the red hat cost? *Measurement example*. A rubber band is 6 cm long. How long will the rubber band be when it is stretched to be 3 times as long?  | A red hat costs $18 and that is 3 times as much as a blue hat costs. How much does a blue hat cost? *Measurement example*. A rubber band is stretched to be 18 cm long and that is 3 times as long as it was at first. How long was the rubber band at first?  | A red hat costs $18 and a blue hat costs $6. How many times as much does the red hat cost as the blue hat? *Measurement example*. A rubber band was 6 cm long at first. Now it is stretched to be 18 cm long. How many times as long is the rubber band now as it was at first?  |
| **General** | *a* × *b* = *?* | *a* × *?* = *p,* and *p* ÷ *a* = *?* | *?* × *b* = *p,* and *p* ÷ *b* = *?* |