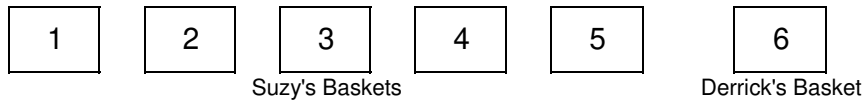# FRACTION WORD PROBLEMS

ANSWERS

Helpful Example

1. Suzy and Derrick play on the same basketball team. During the season, Suzy made 5 times as many baskets as Derrick.

    a. What fraction of the total baskets made between them is Suzy's baskets?

    YOU MIGHT THINK THE TOTAL IS 5, BUT FOR EVERY ONE BASKET DERRICK MAKES SUZY MAKES 5. SO THE TOTAL IS ACTUALLY 6.

    | 1 | 2 | 3 | 4 | 5 | | 6 |

    Suzy's Baskets   Derrick's Basket

    $\frac{5}{6}$ of the basket's belong to Suzy.

    b. If both of them together made 108 baskets, how many did Suzy make?

    YOU'LL NEED TO DIVIDE 108 INTO 6 EQUAL PIECES, WHICH GIVES YOU 18. THEN MULTIPLY IT BY 5 SINCE SUZY MADE 5 OUT OF 6.
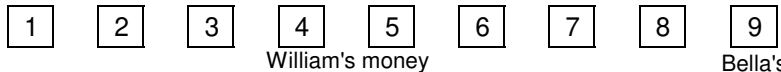
    $\frac{5}{6}$ x 108 = 108 ÷ 6 = 18 x 5 = 90

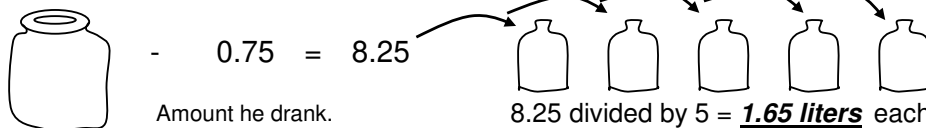   Suzy made 90 baskets and Derrick made 18, which totals 108.

Now your turn.

1. William and Bella share a savings account. William has 8 times more money in the account than Bella. The account currently has $2,592. How much has William saved?
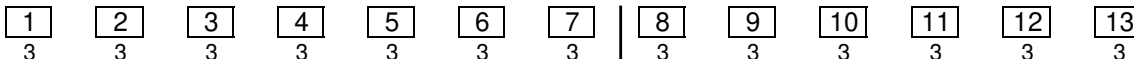
    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

    William's money   Bella's money

    $\frac{8}{9}$ x $2,592 = $2,592 ÷ 9 = 288 x 8 = ***$2,304***

2. Jim bought 9 liters of milk. He drank 0.75 liters and then poured the rest of the milk equally into 5 bottles. How much milk was in each bottle?

    - 0.75 = 8.25

    Amount he drank.   8.25 divided by 5 = ***1.65 liters*** each

3. $\frac{7}{13}$ of Mr. William's students are girls. If there are 21 girls, how many students are in his class?

    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
    | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

    If the total girls is 21 than the 7 parts must each equal 3, because 7 x 3 = 21.

    This tells us the other 6 parts are 3 too. Add them all up and you get ***39 total students***.

4. $\frac{4}{11}$ of the people in a movie theater are adults. If there are 21 more children than adults, how many children are in the theater?

    + = 11

    $\frac{11}{11} - \frac{4}{11} = \frac{7}{11}$ are children in the theater.   ⟹ $\frac{7}{11} - \frac{4}{11} = \frac{3}{11}$ is the fraction of more children than adults.
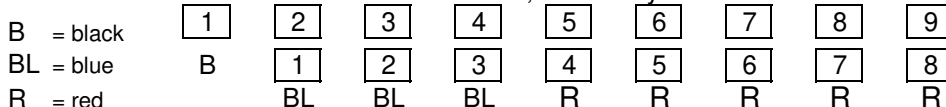
    $\frac{3}{11}$ of the total equals 21.   or $\frac{3}{11}x = 21$ or $\frac{1}{11} = 7$

    There were ***49 children*** and 28 adults in the theater. (7 x 7 = 49 and 4 x 7 = 28)

5. $\frac{1}{9}$ of the kids in Mrs. Rainbow's class said black was their favorite color.

    $\frac{3}{8}$ of the remaining kids said blue was their favorite. The rest said red was their favorite color.

    If 45 students said red was their favorite, how many more students liked red than blue?

    B = black
    BL = blue
    R = red

    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

    B | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
    | BL | BL | BL | R | R | R | R | R |

    45 divided by 5 = 9. So each part is 9.

    9 x 3 parts = 27 like blue.

    45 liked red - 27 liked blue = ***18 more liked red***.