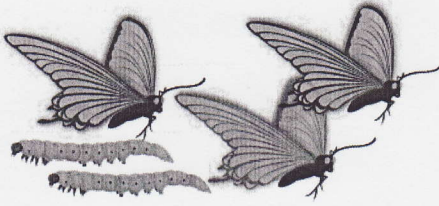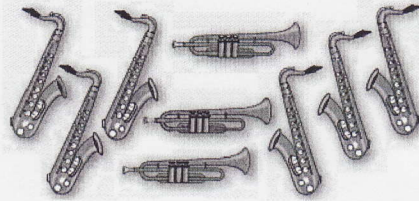Center #1 – Write the ratio and explain what the ratio means.

1. butterflies : caterpillars

2. saxophones : trumpets

Find the missing values in the ratio table. Then write the equivalent ratios.

3.

Levers	6		18
Pulleys	3	6	

4.

Cars	3	6	
Trucks	4		24

Center #2 – Write a unit rate for the situation

1. 3600 stiches in 3 minutes

2. 308 miles in 5 hours

Center #3
Which one is the better buy?
5 ounce can of tuna for $0.90
12 ounce can of tuna for $2.40

Which one contains more sugar per ounce?
24 grams of sugar in 6 fluid ounces
15 grams of sugar in 4 fluid ounces

Center #4 – Write the fraction or mixed number as a percent.

1. $\dfrac{3}{5}$ 2. $\dfrac{43}{25}$ 3. $2\dfrac{21}{50}$

4. 80% of 55 is what number?   5. 125% of 80 is what number?

Center #5 – Write the percent as a fraction or mixed number in simplest form.

1. 12%   2. 188%   3. 0.8%

4. 30% of what number is 27?   5. 40% of what number is 56?

Center #6

There are red marbles and blue marbles in a bag. 70% of the marbles are red and there are 21 of them. How many blue marbles are in the bag?

The ratio of boys to girls in a class is 2:5. If there are 42 students in the class, how many are boys?
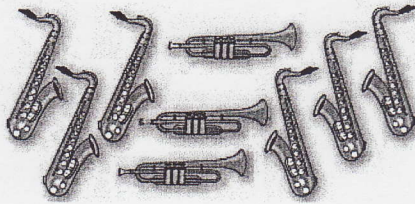
Center #1 – Write the ratio and explain what the ratio means.

1. butterflies : caterpillars

2. saxophones : trumpets

3:2
For every 3 butterflies
there are 2 caterpillars

6:3 For every 6 saxophones
there are 3 trumpets

Find the missing values in the ratio table. Then write the equivalent ratios.

3.

Levers	6	12	18
Pulleys	3	6	9

6:3, 12:6, 18:9

4.

Cars	3	6	18
Trucks	4	8	24

3:4, 6:8, 18:24

Center #2 – Write a unit rate for the situation

1. 3600 stiches in 3 minutes

$$\frac{3600}{3\,min} = \frac{1200\ stiches}{1\ min}$$ ÷3 ÷3

2. 308 miles in 5 hours

$$\frac{308\,mi.}{5\,hrs} = \frac{61.6\,mi}{1\,hr}$$ ÷5 ÷5

Center #3
Which one is the better buy?
5 ounce can of tuna for $0.90
12 ounce can of tuna for $2.40

.90 ÷ 5 = $0.18 each

2.40 ÷ 12 = $0.20 each

5 ounce can is
the better buy

Which one contains more sugar per ounce?
24 grams of sugar in 6 fluid ounces
15 grams of sugar in 4 fluid ounces

24 ÷ 6 = 4 grams per ounce

15 ÷ 4 = 3.75 grams per ounce

24 grams in 6 ounces
has more sugar per ounce

Center #4 – Write the fraction or mixed number as a percent.

1. $\dfrac{3}{5} = \dfrac{60}{100}$ (×20)

60%

2. $\dfrac{43 \times 4}{25 \times 4} = \dfrac{172}{100}$

172%

3. $2\dfrac{21}{50} \times 2 \quad 2\dfrac{42}{100}$

242%

4. 80% of 55 is what number?

$\dfrac{80}{100} \times 55$

$\dfrac{4}{5} \times \dfrac{55}{1} = 44$

5. 125% of 80 is what number?

$\dfrac{125}{100} \times 80$

$\dfrac{5}{4} \times \dfrac{80^{20}}{1} = 100$

or

100% of 80 = 80
25% of 80
$\dfrac{1}{4} \times \dfrac{80^{20}}{1} = 20$

80 + 20 = 100

Center #5 – Write the percent as a fraction or mixed number in simplest form.

1. 12%

$\dfrac{12}{100} = \dfrac{6}{50} = \dfrac{3}{25}$

2. 188%

$\dfrac{188}{100} = 1\dfrac{88}{100}$

$= 1\dfrac{22}{25}$

3. 0.8%

$\dfrac{0.8 \times 10}{100 \times 10} = \dfrac{8}{1000} = \dfrac{1}{125}$

4. 30% of what number is 27?

$\dfrac{30}{100} \times n = 27$

$\dfrac{3}{10} \times n = 27$

$27 \div \dfrac{3}{10}$

$\dfrac{27^9}{1} \cdot \dfrac{10}{3} = \boxed{90}$

5. 40% of what number is 56?

$\dfrac{40}{100} \times n = 56$

$\dfrac{2}{5} \times n = 56$

$56 \div \dfrac{2}{5}$

$\dfrac{56^{28}}{1} \cdot \dfrac{5}{2} = \boxed{140}$

Center #6

There are red marbles and blue marbles in a bag. 70% of the marbles are red and there are 21 of them. How many blue marbles are in the bag?

70% of the marbles are red

$\dfrac{70}{100} \times m = 21$

$\dfrac{7}{10} \times m = 21$

$21 \div \dfrac{7}{10}$

$\dfrac{21^3}{1} \cdot \dfrac{10}{7} = 30$ marbles

30 − 21 = 9 blue marbles

The ratio of boys to girls in a class is 2:5. If there are 42 students in the class, how many are boys?

2:5 → 7 total groups

42 ÷ 7 = 6 in each group

6 × 2 = 12 boys