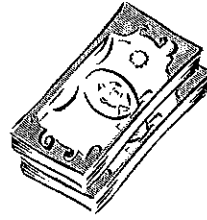


## Ratio

1. John and David are going to split £60 in the ratio 2:3. How much will each get?



2. Amanda and Laura are going to split £28 in the ratio 4:3. How much will each get?
3. There are 160 pupils in first year at a secondary school. The ratio of boys to girls is 3:5. How many boys and how many girls are in first year?

4. 72 students sit a maths exam. The ratio of passes to fails is 2:1. How many students passed the exam?



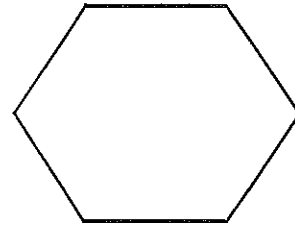
5. Brian and Sidra are going to share 40 sweets in the ratio 2:3. How many sweets will Sidra get?
6. In a box there are 200 pens, some black and some blue. The ratio of black pens to blue pens is 7:3. How many black pens are in the box?
7. A crate contains 360 eggs. The ratio of whole eggs to broken eggs is 7:2. How many broken eggs are in the crate?
8. In a survey of 200 cars, the ratio of cars made in Britain to those made abroad is 1:4. How many of the cars were made abroad?



9. A fruit shop takes delivery of 100 pineapples. The ratio of ripe to unripe pineapples is 4:1. How many ripe pineapples are there?



16. In a class of 30 pupils the ratio of those who recognised the shape opposite to those who did not was 7:3. How many pupils did not recognise the shape?



17. Abdul (aged 6), Ben (aged 7) and Michael (aged 3) are given £48 to share by their grandfather. The money is shared in the ratio of their ages. How much will each boy get?

18. The ratio of land to water on the surface of the Earth is approximately 3:7. If the surface area of the Earth is  $5.1 \times 10^8$  square kilometres, how much of the Earth is water?



19. 500 children were asked to choose their favourite cartoon from The Simpsons, Family Guy and South Park.. The ratio of the choices was 5:2:3. How many children chose the Simpsons as their favourite?

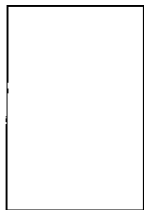
20. A doctor surveys 2000 of his patients to find out who had a MMR vaccination as a child. The ratio of those who were vaccinated to those who were not was 4:1. How many were not vaccinated?



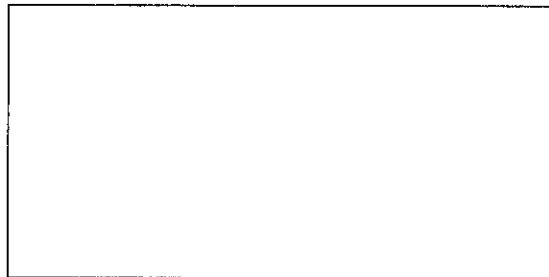
Name \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_

### **Rates and Ratios 3**

1. For every 5 yards you run, Jill runs 6 yards.
  - a. If you have run 30 yards, then how far has Jill run?
  
  - b. If Jill has run 54 yards, then how far have you run?
  
2. 570 people die from smoking related diseases every day. ([www.thetruth.com](http://www.thetruth.com))
  - a. How many people die from smoking related diseases every hour?
  
  - b. How many people die from smoking related diseases every week?
  
  - c. How many people die from smoking related diseases every year?  
(Hint: There are 365 days in a year.)
  
3. You type 200 words in 5 minutes. Brenda types 240 words in 6 minutes.
  - a. How many words you type in 1 minute?
  
  - b. How many words does Brenda type in a minute?
  
  - c. Who types the fastest?
  
4. The width to length ratio of the rectangles is 3 to 5. Fill in the missing lengths.  
(Hint: The width is the shorter side; the length is the longer side.)



6 inches



30 inches

Name \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_

### Rates and Ratios 2

1. The ratio of goldfish to gallons of water is 9 to 4.

a. For every \_\_\_\_\_ goldfish, there are \_\_\_\_\_ gallons of water.

b. Fill in the table.

Fish	Gallons of Water
9	4
18	

c. How many goldfish can you get if you have 12 gallons of water?

d. How many gallons of water do you need to keep 36 fish?

2. The price of oranges is 4 for \$3.00.

a. For every \_\_\_\_\_ oranges, you pay \_\_\_\_\_.

b. Fill in the table.

Oranges	\$
4	3
8	

c. How much do you pay for 24 oranges?

d. How many apples can you buy for \$15?

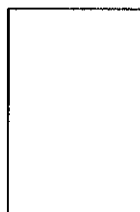
Name \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_

### Rates and Ratios 1

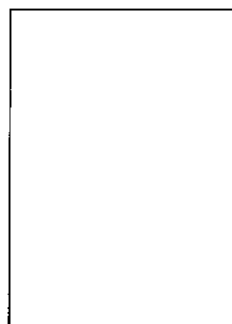
1. The ratio of goldfish to gallons of water is 7 to 2.
  - a. For every \_\_\_\_\_ goldfish, there are \_\_\_\_\_ gallons of water.
  - b. How many goldfish can you get if you have 16 gallons of water?
  - c. How many gallons of water do you need to keep 28 fish?
2. The price of apples is 3 for \$2.00.
  - a. For every \_\_\_\_\_ apples, you pay \_\_\_\_\_.
  - b. How much do you pay for 30 apples?
  - c. How many apples can you buy for \$10?
3. You are taking a test in science. There are 20 questions and 45 minutes.
  - a. For every \_\_\_\_\_ questions, you have \_\_\_\_\_ minutes.
  - b. How much time do you have for 10 questions?
  - c. How much time do you have for 5 questions?
  - d. How much time do you have for 1 question?
4. All of the following rectangle's width to length ratio is 2 to 3. Fill in the missing lengths. (Hint: The width is the shorter side; the length is the longer side.)
  - a. For every \_\_\_\_\_ inches in the width, there are \_\_\_\_\_ inches in the length.



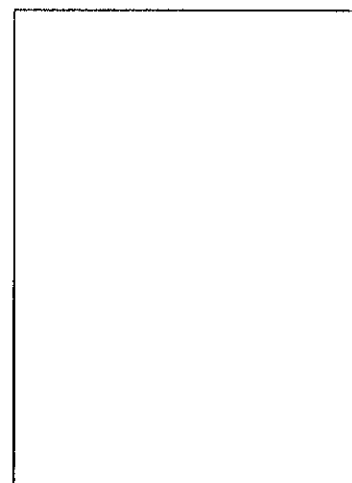
2 inches



4 inches



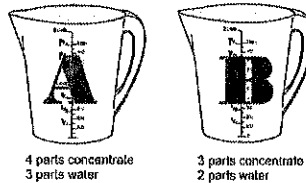
6 inches



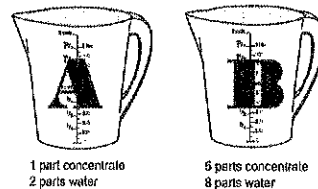
8 inches

## Equivalent Ratios

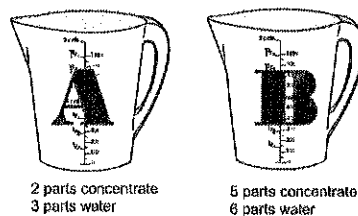
- 1) Determine if the following ratios are equivalent.
- a) 12:15 and 48:60      b) 5:2 and 25:16      c) 3:3 and 15:18      d) 600:100 and 6:1
- 2) Lemonade is made with water and concentrate. Which pitcher has the stronger lemonade?



- 3) Compare the strawberry punch in each pitchers. Which has the stronger strawberry taste?



b)



- 4) Beakers of blue and clear liquids are combined. Predict which set you think will produce the bluer liquid.



- 5) Croft Foods makes a barbecue sauce in which the ratio of vinegar to brown sugar is 2:5. Hanes Foods makes a sauce in which the ratio of vinegar to brown sugar is 3:7. Which sauce is sweeter?

- 6) Which solution is saltier?

Solution A – 5mL of salt dissolved in 8 mL of water

Solution B- 3mL of salt dissolved in 5 mL of water

Answers: 1a) yes b) no c) no d)yes 2) Pitcher B 3a) Punch B b) Punch B 4) Set A 5)Croft's 6)Solution A