

# Yr 5 Multiplication and division Unit 1 (5813)

## Additional teacher instructions for practice sheets

These notes indicate which practice sheets are most appropriate for which groups.

**Day 1 Using known facts to help with divisions Sheet 1**  
Working towards ARE

**Day 1 Using known facts to help with divisions Sheet 2**  
Working at ARE

**Day 1 Using known facts to help with divisions Sheet 3**  
Greater Depth

**Day 2 Multiplication and division word problems Sheet 1**  
Working towards ARE

Children work in pairs to read word problems, agree the necessary calculations then answer the problems.

**Day 2 Multiplication and division word problems Sheet 2**  
Working at ARE

Children work in pairs to read word problems, agree the necessary calculations then answer the problems.

**Day 2 Multiplication and division word problems Sheet 3**  
Greater Depth

Children work in pairs to read word problems, agree the necessary calculations then answer the problems.

**Day 3 Holiday word problems Sheet 1**  
Working towards ARE

Children work in pairs to read each of four word problems in turn, discuss what they need to do to the numbers in the problem to solve it, and sort them according to what operation is needed to solve each. They find the answer to the calculation, recording any jottings and then answer the problem.

**Day 3 Holiday word problems Sheet 2**  
Working at ARE / Greater Depth

Children work in pairs to read each of four word problems in turn, discuss what they need to do to the numbers in the problem to solve it, and sort them according to what operation is needed to solve each. They find the answer to the calculation, recording any jottings and then answer the problem.

## Using known facts to help with divisions

### Sheet 1

Work out  $10 \times 6$ ,  $20 \times 6$ ,  $30 \times 6$ ,  $10 \times 7$ ,  $20 \times 7$ ,  $30 \times 7$ ,  $10 \times 8$ ,  $20 \times 8$  and  $30 \times 8$ .

Use these facts to help calculate the exact answers to these divisions. Write remainders as fractions.

1.  $69 \div 6$
2.  $129 \div 6$
3.  $77 \div 7$
4.  $147 \div 7$
5.  $88 \div 8$
6.  $164 \div 8$
7.  $122 \div 6$
8.  $242 \div 8$
9.  $209 \div 7$
10.  $183 \div 6$

Make up your own divisions that you can solve using the nine multiplication facts that you found at the beginning.

## Using known facts to help with divisions

### Sheet 2

Work out  $20 \times 6$ ,  $30 \times 6$ ,  $40 \times 6$ ,  $20 \times 7$ ,  $30 \times 7$ ,  $40 \times 7$ ,  $20 \times 8$ ,  $30 \times 8$  and  $40 \times 8$ .

Use these facts to help calculate the exact answers to these divisions. Write remainders as fractions.

1.  $129 \div 6$
2.  $147 \div 7$
3.  $164 \div 8$
4.  $122 \div 6$
5.  $162 \div 8$
6.  $166 \div 8$
7.  $183 \div 6$
8.  $224 \div 7$
9.  $244 \div 8$
10.  $255 \div 6$
11.  $287 \div 7$
12.  $332 \div 8$

Make up your own divisions that you can solve using the nine multiplication facts that you found at the beginning.

# Using known facts to help with divisions

## Sheet 3

Work out  $20 \times 6$ ,  $30 \times 6$ ,  $40 \times 6$ ,  $20 \times 7$ ,  $30 \times 7$ ,  $40 \times 7$ ,  $20 \times 8$ ,  $30 \times 8$  and  $40 \times 8$ .

Use these facts to help calculate the exact answer to these divisions. Write remainders as fractions.

1.  $135 \div 6$

2.  $154 \div 7$

3.  $172 \div 8$

4.  $128 \div 6$

5.  $170 \div 8$

6.  $174 \div 8$

7.  $195 \div 6$

8.  $238 \div 7$

9.  $270 \div 8$

10.  $261 \div 6$

11.  $294 \div 7$

12.  $332 \div 8$

### Challenge

Write your own divisions where finding these facts would help:  $50 \times 6$ ,  $60 \times 7$ ,  $70 \times 9$

# Multiplication and division word problems

## Sheet 1

1. A tea shop has 23 boxes of herbal tea. They come in boxes of 20 tea bags. How many tea bags do they have?

2. The tea shop has  $10\frac{1}{2}$  cakes left. If each cake is cut into 8 slices how many slices is this?

3. 16 children in Year 5 have each brought 20p to buy a snack at break time. How much money have they brought in altogether?

4. How many weeks is 91 days?

5. A family of 6 go out for a birthday meal. The bill comes to £63. How much does the meal cost per person?

6. A bus route is 17 miles. If the driver drives it 20 times in a day, how many miles is that?

7. A school has 147 children equally split between 7 classes. How many children are in each class?

8. A top distance runner takes an average time of 5 minutes to run a mile. How long will it take to run 14 miles?

# Multiplication and division word problems

## Sheet 2

1. A tea shop has 49 boxes of herbal tea. They come in boxes of 20 tea bags. How many tea bags do they have?

2. The tea shop has  $11\frac{1}{2}$  cakes left. If each cake is cut into 8 slices how many slices is this?

3. 32 children in Year 5 have each brought 20p to buy a snack at break time. How much money have they brought in altogether?

4. How many weeks is 154 days?

5. A family of 6 go out for a birthday meal. The bill comes to £75. How much does the meal cost per person?

6. A bus route is 38 miles. If the driver drives it 15 times in a day, how many miles is that?

7. A school has 217 children equally split between 7 classes. How many children are in each class?

8. A top distance runner takes an average time of 5 minutes to run a mile. How long will it take to run 26 miles?

# Multiplication and division word problems

## Sheet 3

1. A tea shop has 59 boxes of herbal tea. They come in boxes of 20 tea bags. How many tea bags do they have?

2. The tea shop has  $11\frac{1}{4}$  cakes left. If each cake is cut into 8 slices how many slices is this?

3. 37 children in Year 5 have each brought 20p to buy a snack at break time. How much money have they brought in altogether?

4. How many weeks is 224 days?

5. A family of 6 go out for a birthday meal. The bill comes to £81. How much does the meal cost per person?

6. A bus route is 32 miles. If the driver drives it 19 times in a day, how many miles is that?

7. A school has 203 children equally split between 7 classes. How many children are in each class?

8. A top distance runner takes an average time of 5 minutes to run a mile. How long will it take to run 27 miles?

# Holiday word problems

## Sheet 1

1. The Smith family are going for a day out. The seaside town they are visiting is 96 miles away. So far they are  $\frac{1}{3}$  of the way there. How much further do they have to go?

2. Four brothers and sisters have been putting small change into a jar to save for holiday spending money. They have saved £104 and their grandparents give them an extra £20. How much money do they have each?

3. A plane's average speed is 223mph. How far will it have flown after 3 hours?

7. Petrol costs 120p per litre. The drive from home to the holiday cottage uses a whole tank of petrol: 60 litres! How much does it cost to drive there and home again?

4. A family of four are going camping with their dog. The camp site charges £13 per night for a family tent for 4, and £2.50 per night for a dog. What will the cost be for one week?

5. The population of a moorland village is 2357. One Sunday in August, there are 472 visitors to the village, making good use of the tea shops! 426 villagers have gone out for the day. How many people are in the village?

6. A family are looking for a last minute holiday. They see a holiday cottage advertised online with 10% off the full price of £450. What will be the reduced price?

### Challenge

Now make up your own holiday word problems for someone else to solve. You must be able to work out the answer yourself!

# Holiday word problems

## Sheet 2

- |  |  |
|--|--|
| 1. The temperature is $38^{\circ}\text{C}$ in Greece today and only $-3^{\circ}\text{C}$ in Iceland, what is the difference between the two temperatures?  | 4. A plane's average speed is 247mph. How far will it have flown after 3 hours?  |
| 2. The Smith family are going for a day out. The seaside town they are visiting is 132 miles away. So far they are $\frac{2}{3}$ of the way there. How much further do they have to go?                          | 5. Petrol costs 120p per litre. The drive from home to the holiday cottage uses a whole tank of petrol: 60 litres! How much does it cost to drive there <u>and</u> home again? |
| 3. Four brothers and sisters have been putting small change into a jar to save for holiday spending money. They have saved £134 and their grandparents give them an extra £40. How much money do they have each? | 6. A family are looking for a last minute holiday. They see a holiday cottage advertised online with 20% off the full price of £450. What will be the reduced price?           |
| 7. Theme park family tickets cost £110. One day in April, the theme park takes £7700 in family ticket sales. How many tickets is this?   |  |

### Challenge

Now make up your own holiday word problems for someone else to solve.  
You must be able to work out the answer yourself!

# Multiplication and division

## Answers

### Day 1 Using known facts to help with divisions Sheet 1

$10 \times 6 = 60$

$20 \times 6 = 120$

$30 \times 6 = 180$

$10 \times 7 = 70$

$20 \times 7 = 140$

$30 \times 7 = 210$

$10 \times 8 = 80$

$20 \times 8 = 160$

$30 \times 8 = 240$

1.  $69 \div 6 = 11 \frac{3}{6}$  or  $11 \frac{1}{2}$

2.  $129 \div 6 = 21 \frac{3}{6}$  or  $21 \frac{1}{2}$

3.  $77 \div 7 = 11$

4.  $147 \div 7 = 21$

5.  $88 \div 8 = 11$

6.  $164 \div 8 = 20 \frac{4}{8}$  or  $20 \frac{1}{2}$

7.  $122 \div 6 = 20 \frac{2}{6}$  or  $20 \frac{1}{3}$

8.  $242 \div 8 = 30 \frac{2}{8}$  or  $30 \frac{1}{4}$

9.  $209 \div 7 = 29 \frac{6}{7}$

10.  $183 \div 6 = 30 \frac{3}{6}$  or  $30 \frac{1}{2}$

### Day 1 Using known facts to help with divisions Sheet 2

$20 \times 6 = 120$

$30 \times 6 = 180$

$40 \times 6 = 240$

$20 \times 7 = 140$

$30 \times 7 = 210$

$40 \times 7 = 280$

$20 \times 8 = 160$

$30 \times 8 = 240$

$40 \times 8 = 320$

1.  $129 \div 6 = 21 \frac{3}{6}$  or  $21 \frac{1}{2}$

2.  $147 \div 7 = 21$

3.  $164 \div 8 = 20 \frac{4}{8}$  or  $20 \frac{1}{2}$

4.  $122 \div 6 = 20 \frac{2}{6}$  or  $20 \frac{1}{3}$

5.  $162 \div 8 = 20 \frac{2}{8}$  or  $20 \frac{1}{4}$

6.  $166 \div 8 = 20 \frac{6}{8}$  or  $20 \frac{3}{4}$

7.  $183 \div 6 = 30 \frac{3}{6}$  or  $30 \frac{1}{2}$

8.  $224 \div 7 = 32$

9.  $244 \div 8 = 30 \frac{4}{8}$  or  $30 \frac{1}{2}$

10.  $255 \div 6 = 42 \frac{3}{6}$  or  $42 \frac{1}{2}$

11.  $287 \div 7 = 41$

12.  $332 \div 8 = 41 \frac{4}{8}$  or  $41 \frac{1}{2}$

# Multiplication and division

## Answers

### Day 1 Using known facts to help with divisions Sheet 3

$20 \times 6 = 120$

$30 \times 6 = 180$

$40 \times 6 = 240$

$20 \times 7 = 140$

$30 \times 7 = 210$

$40 \times 7 = 280$

$20 \times 8 = 160$

$30 \times 8 = 240$

$40 \times 8 = 320$

1.  $135 \div 6 = 22\frac{3}{6}$  or  $22\frac{1}{2}$

2.  $154 \div 7 = 22$

3.  $172 \div 8 = 21\frac{4}{8}$  or  $21\frac{1}{2}$

4.  $128 \div 6 = 21\frac{2}{6}$  or  $21\frac{1}{3}$

5.  $170 \div 8 = 21\frac{2}{8}$  or  $21\frac{1}{4}$

6.  $174 \div 8 = 21\frac{6}{8}$  or  $21\frac{3}{4}$

7.  $195 \div 6 = 32\frac{3}{6}$  or  $32\frac{1}{2}$

8.  $238 \div 7 = 34$

9.  $270 \div 8 = 33\frac{6}{8}$  or  $33\frac{3}{4}$

10.  $261 \div 6 = 43\frac{3}{6}$  or  $43\frac{1}{2}$

11.  $294 \div 7 = 42$

12.  $332 \div 8 = 41\frac{4}{8}$  or  $41\frac{1}{2}$

### Challenge

e.g.  $50 \times 6 = 300$       $304 \div 6 = 50\frac{4}{6}$  or  $50\frac{2}{3}$

$60 \times 7 = 420$       $427 \div 7 = 61$

$70 \times 9 = 630$       $630 \div 9 = 69\frac{4}{9}$

### Day 2 Multiplication and division word problems Sheet 1

1.  $23 \times 20 = 460$

The tea shop has 460 tea bags.

2.  $10\frac{1}{2} \times 8 = 84$

The tea shop has 84 slices of cake.

3.  $16 \times 20\text{p} = 320\text{p}$  or  $\text{£}3.20$

The children have brought in  $\text{£}3.20$  altogether.

4.  $91 \div 7 = 13$

91 days is 13 weeks.

5.  $\text{£}63 \div 6 = \text{£}10.50$

The meal cost  $\text{£}10.50$  per person.

6.  $17 \times 20 = 340$

The driver drives 340 miles in a day.

7.  $147 \div 7 = 21$

There are 21 children in each class.

8.  $14 \times 5\text{min} = 70\text{min}$

It will take the runner 1 hour and 10 minutes.

### Day 2 Multiplication and division word problems Sheet 2

1.  $49 \times 20 = 980$

The tea shop has 980 tea bags.

2.  $11\frac{1}{2} \times 8 = 92$

The tea shop has 92 slices of cake.

3.  $32 \times 20\text{p} = 640\text{p}$  or  $\text{£}6.40$

The children have brought in  $\text{£}6.40$  altogether.

4.  $154 \div 7 = 22$

154 days is 22 weeks.

5.  $\text{£}75 \div 6 = \text{£}12.50$

The meal cost  $\text{£}12.50$  per person.

6.  $38 \times 15 = 570$

The driver drives 570 miles in a day.

7.  $217 \div 7 = 31$

There are 31 children in each class.

8.  $26 \times 5\text{min} = 130\text{min}$

It will take the runner 2 hours and 10 minutes.

# Multiplication and division

## Answers

### Day 2 Multiplication and division word problems Sheet 3

- $59 \times 20 = 1180$  The tea shop has **1180** tea bags.
- $11 \frac{1}{4} \times 8 = 90$  The tea shop has **90** slices of cake.
- $37 \times 20\text{p} = 740\text{p}$  or **£7.40** The children have brought in **£7.40** altogether.
- $224 \div 7 = 32$  224 days is **32** weeks.
- $£81 \div 6 = £13.50$  The meal cost **£13.50** per person.
- $32 \times 19 = 608$  The driver drives **608 miles** in a day.
- $203 \div 7 = 29$  There are **29 children** in each class.
- $27 \times 5\text{min} = 135\text{min}$  It will take the runner 2 hours and 15 minutes.

### Day 3 Holiday word problems Sheet 1

- $\frac{1}{3}$  of 96 = 32,  $96 - 32 = 64$   
The Smith family have **64 miles** to go.
- $£104 + £20 = £124$ .  $£124 \div 4 = £31$   
The children have **£31** each.
- $223 \times 3 = 669$   
The plane will have flown **669 miles** in 3 hours.
- $£13 \times 7 = £91$ ,  $£2.50 \times 7 = £17.50$ .  $£91 + £17.50 = £108.50$   
The cost of the campsite will be **£108.50** for one week.
- $2357 - 426 = 1931$ .  $1931 + 472 = 2403$   
There are **2403** people in the village.
- 10% of  $£450 = £45$ .  $£450 - £45 = £405$   
The reduced price will be **£405**.
- $120\text{p} \times 60 = 7200\text{p} = £72$  one way  $£72 \times 2 = £144$   
It will cost **£144** to drive there and back.

### Day 3 Holiday word problems Sheet 2

- $38^\circ\text{C} - -3^\circ\text{C} = 41^\circ\text{C}$   
The difference in temperatures is **41°C**.
- $\frac{2}{3}$  of 132 = 88,  $132 - 88 = 44$   
The Smith family have **44 miles** to go.
- $£134 + £40 = £174$ .  $£174 \div 4 = £43.50$   
The children have **£43.50** each.
- $247 \times 3 = 741$   
The plane will have flown **741 miles** in 3 hours.
- $120\text{p} \times 60 = 7200\text{p} = £72$  one way  $£72 \times 2 = £144$   
It will cost **£144** to drive there and back.
- 20% of  $£450 = £90$ .  $£450 - £90 = £360$   
The reduced price will be **£360**.
- $£7700 \div £110 = 70$  family tickets  
There were **70** family tickets sold.