Year 5 Maths Home Learning | Summer Term

W.C.1st June 2020

https://www.bbc.co.uk/bitesize/tags/zhgppg8/year-5-lessons/1

Maths ANSWERS

Monday

Mulitply unit and non-unit fractions by an integer

Mild

Complete the calculations.

Use the bar models to help you.

a)

$\frac{1}{5} + \frac{1}{5} + \frac{1}{5} = \frac{3}{5}$ $\quad 3 \times \frac{1}{5} = \frac{3}{5}$

b)

$\frac{1}{7} + \frac{1}{7} + \frac{1}{7} + \frac{1}{7} = \frac{4}{7}$ $\quad 4 \times \frac{1}{7} = \frac{4}{7}$

c)

$\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} = \frac{5}{8}$ $\quad 5 \times \frac{1}{8} = \frac{5}{8}$

d)

$\frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} + \frac{1}{10} = \frac{7}{10}$ $\quad 7 \times \frac{1}{10} = \frac{7}{10}$

1. $\frac{1}{2} \times 4 =$ $\boxed{\frac{4}{2} = 2}$

2. $\frac{1}{3} \times 5 =$ $\boxed{\frac{5}{3} = 1\frac{2}{3}}$

3. $\frac{1}{4} \times 3 =$ $\boxed{\frac{3}{4}}$

4. $\frac{1}{5} \times 2 =$ $\boxed{\frac{2}{5}}$

5. $\frac{1}{4} \times 4 =$ $\boxed{\frac{4}{4} = 1}$

6. $\frac{1}{3} \times 3 =$ $\boxed{\frac{3}{3} = 1}$

7. $\frac{1}{6} \times 5 =$ $\boxed{\frac{5}{6}}$

8. $\frac{1}{8} \times 3 =$ $\boxed{\frac{3}{8}}$

9. $\frac{1}{2} \times 2 =$ $\boxed{\frac{2}{2} = 1}$

10. $\frac{1}{2} \times 3 =$ $\boxed{\frac{3}{2} = 1\frac{1}{2}}$

Medium

Complete the multiplications.

a) $3 \times \frac{1}{8} =$ $\boxed{\frac{3}{8}}$

b) $3 \times \frac{1}{10} =$ $\boxed{\frac{3}{10}}$

c) $\frac{1}{8} \times 5 =$ $\boxed{\frac{5}{8}}$

d) $9 \times \frac{1}{10} =$ $\boxed{\frac{9}{10}}$

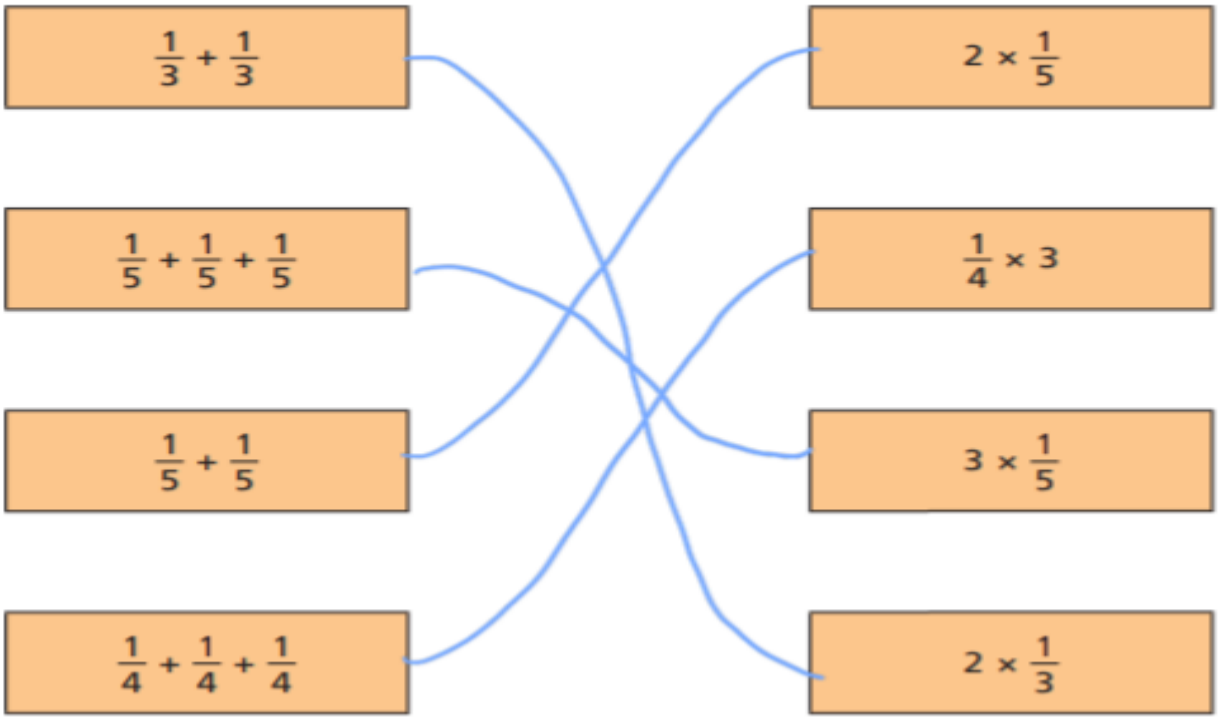
e) $\frac{1}{5} \times 4 =$ $\boxed{\frac{4}{5}}$

f) $\frac{1}{9} \times 8 =$ $\boxed{\frac{8}{9}}$

g) $8 \times \frac{1}{11} =$ $\boxed{\frac{8}{11}}$

h) $\frac{1}{11} \times 10 =$ $\boxed{\frac{10}{11}}$

Match the addition to the equivalent multiplication.



A pizza is cut into sixths.

Jack eats five of the slices.

Write a multiplication to represent this.

$5 \times \frac{1}{6} = \frac{5}{6}$

Spicy

1. $\frac{1}{2} \times 7 = \boxed{\frac{7}{2} = 3\frac{1}{2}}$

2. $\frac{2}{3} \times 4 = \boxed{\frac{8}{3} = 2\frac{2}{3}}$

3. $\frac{3}{4} \times 5 = \boxed{\frac{15}{4} = 3\frac{3}{4}}$

4. $\frac{3}{5} \times 3 = \boxed{\frac{9}{5} = 1\frac{4}{5}}$

5. $\frac{2}{4} \times 6 = \boxed{\frac{12}{4} = 3}$

6. $\frac{2}{3} \times 8 = \boxed{\frac{16}{3} = 5\frac{1}{3}}$

7. $\frac{5}{6} \times 9 = \boxed{\frac{45}{6} = 7\frac{3}{6} = 7\frac{1}{2}}$

8. $\frac{5}{8} \times 4 = \boxed{\frac{20}{8} = 2\frac{4}{8} = 2\frac{1}{2}}$

9. $\frac{1}{2} \times 6 = \boxed{\frac{6}{2} = 3}$

10. $\frac{4}{8} \times 7 = \boxed{\frac{28}{8} = 3\frac{4}{8} = 3\frac{1}{2}}$

Complete the multiplications.

a) $11 \times \frac{1}{10} = \boxed{\frac{11}{10}} = \boxed{1\frac{1}{10}}$

b) $11 \times \frac{1}{9} = \boxed{\frac{11}{9}} = \boxed{1\frac{2}{9}}$

c) $\frac{1}{8} \times 11 = \boxed{\frac{11}{8}} = \boxed{1\frac{3}{8}}$

d) $11 \times \frac{1}{7} = \boxed{\frac{11}{7}} = \boxed{1\frac{4}{7}}$

e) $11 \times \frac{1}{6} = \boxed{\frac{11}{6}} = \boxed{1\frac{5}{6}}$

What do you notice?

Does this pattern continue?

Complete the calculations.

a) $\boxed{2} \times \frac{1}{3} = \frac{2}{3}$

b) $\boxed{3} \times \frac{1}{3} = 1$

c) $\boxed{7} \times \frac{1}{7} = 1$

d) $\frac{1}{7} \times \boxed{10} = 1\frac{3}{7}$

e) $\frac{1}{8} \times \boxed{11} = 1\frac{3}{8}$

f) $\boxed{7} \times \frac{1}{2} = 3\frac{1}{2}$

g) $\boxed{10} \times \frac{1}{3} = 3\frac{1}{3}$

h) $\frac{1}{4} \times \boxed{13} = 3\frac{1}{4}$

Tuesday

Multiply mixed numbers by an integer

Mild

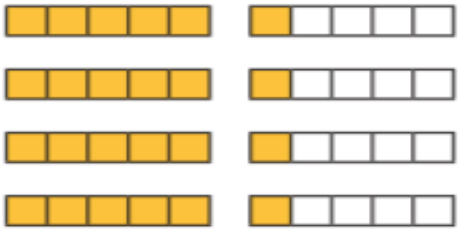
Complete the calculations.

a) $4 \times 1\frac{1}{5}$

$4 \times 1 =$ 4

$4 \times \frac{1}{5} =$ $\frac{4}{5}$

4 + $\frac{4}{5}$ = $4\frac{4}{5}$

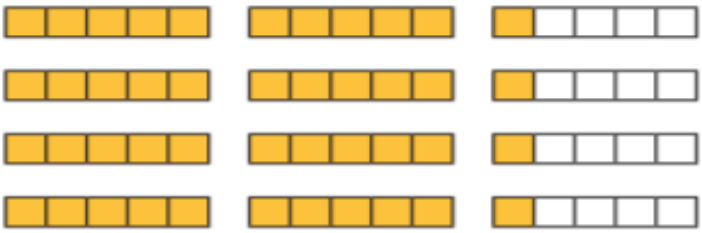


b) $4 \times 2\frac{1}{5}$

4 × 2 = 8

$4 \times \frac{1}{5} = \frac{4}{5}$

8 + $\frac{4}{5}$ = $8\frac{4}{5}$

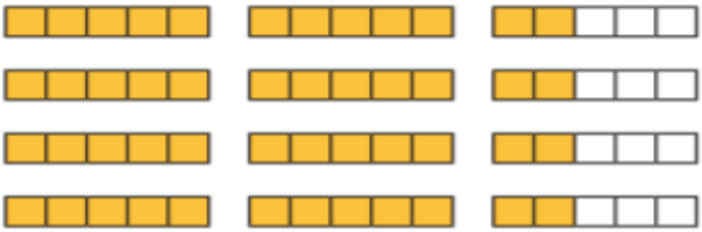


c) $4 \times 2\frac{2}{5}$

4 × 2 = 8

$4 \times \frac{2}{5} = \frac{8}{5} = 1\frac{3}{5}$

8 + $1\frac{3}{5}$ = $9\frac{3}{5}$



1. James is having a pizza party. Each person at the party eats 3/8 of a pizza. If 6 people attend the party, how many slices of pizza did James need?

   6 × 3/8 = 18/8 = 2 2/8 = 2 2/8 = 2 $\frac{1}{4}$ pizzas

2. Lucy walked 1/6 of a kilometre each day for 8 days. How many kilometres did she walk in total?

   8 × 1/6 = 8/6 = 1 2/6 = 1 1/3km

3. Tina swam $\frac{3}{4}$ of a kilometre on Monday, Tuesday, Wednesday and Friday. How many kilometres did she swim in total?

   4 × 3/4 = 12/4 = 3km

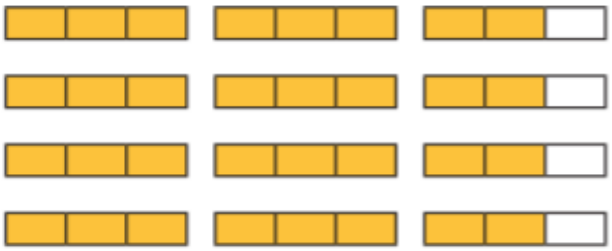
Medium

$4 \times 2\frac{2}{3}$

$4 \times 2 = 8$

$4 \times \frac{2}{3} = \frac{8}{3} = 2\frac{2}{3}$

$8 + 2\frac{2}{3} = 10\frac{2}{3}$



Complete the multiplications.

a) $3 \times 8\frac{2}{7} = 24\frac{6}{7}$

b) $2 \times 12\frac{2}{11} = 24\frac{4}{11}$

c) $6\frac{2}{11} \times 4 = 24\frac{8}{11}$

d) $4 \times 6\frac{3}{19} = 24\frac{12}{19}$

e) $2\frac{2}{25} \times 12 = 24\frac{24}{25}$

f) $3\frac{1}{15} \times 8 = 24\frac{8}{15}$

What is the same and what is different about your answers?

They all contain 24 wholes but the fraction is different

Jack baked some trays of brownies for his 5 friends. He is going to give each of his friends 4/6 of a tray. How many trays of brownies does he give away?

5 × 4/6 = 20/6 = 3 2/6 = 3 1/3 trays

Five children share some pizzas. Each child eats 2/3 of a pizza. How many pizzas are eaten?

5 × 2/3 = 10/3 = 3 1/3 pizzas

To bake a batch of cookies, 1/3 of a packet of sugar is needed. Chen needs to make 5 batches of cookies. How much sugar is used?

5 × 1/3 = 5/3 = 1 2/3 bags of sugar

One bag of potatoes weighs $1\frac{3}{4}$ kg.

How much do 5 bags of potatoes weigh?

$8\frac{3}{4}$ kg

Spicy

Complete the calculations.

a) $5 \times 2\frac{2}{3} = 10 + \frac{10}{3} =$ $13\frac{1}{3}$

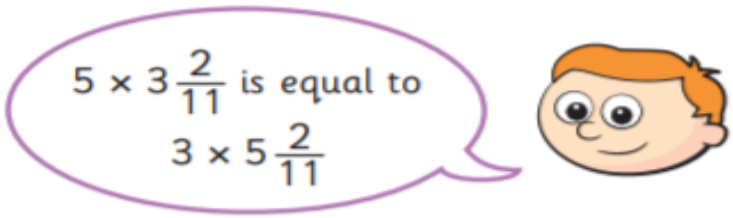
b) $4\frac{3}{7} \times 5 = 20 +$ $\frac{15}{7}$ $=$ $22\frac{1}{7}$

c) $8 \times 2\frac{5}{12} =$ 16 $+$ $\frac{40}{12}$ $=$ $19\frac{1}{3}$

d) $7 \times 3\frac{1}{5} =$ 21 $+$ $\frac{7}{5}$ $=$ $22\frac{2}{5}$

e) $4\frac{2}{9} \times 8 =$ 32 $+$ $\frac{16}{9}$ $=$ $33\frac{7}{9}$

f) $11 \times 4\frac{3}{10} =$ 44 $+$ $\frac{33}{10}$ $=$ $47\frac{3}{10}$



Do you agree with Ron? No

Explain why.

$5 \times 3\frac{2}{11} = 15\frac{10}{11}$

$3 \times 5\frac{2}{11} = 15\frac{6}{11}$

Here is a recipe for a birthday cake.

Butter $1\frac{3}{8}$ kg

Sugar $1\frac{5}{16}$ kg

Self-raising flour $2\frac{1}{4}$ kg

6 eggs

a) How much flour is needed for 3 birthday cakes?

$6\frac{3}{4}$ kg

b) Dora makes 4 birthday cakes.

How much more butter does she use than sugar?

$\frac{1}{4}$ kg

Wednesday

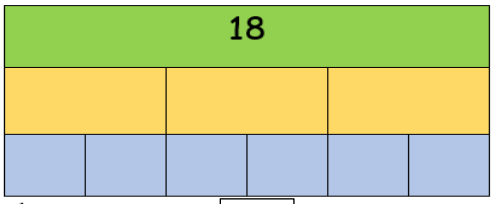
Problem solving with fractions

Make sure you check the answers to the problems on Bitesize and you have had several attempts on Times Table Rockstars today! ☺

Thursday

Fractions of amounts in contexts

Mild

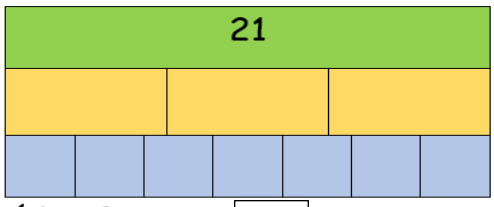


$^1/_3$ of 18 = **6**

$^1/_6$ of 18 = **3**

$^2/_3$ of 18 = **12**

$^5/_6$ of 18 = **15**

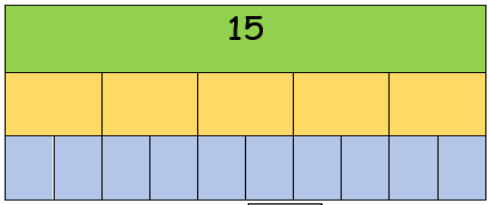


$^1/_3$ of 21 = **7**

$^1/_7$ of 21 = **3**

$^2/_3$ of 21 = **14**

$^4/_7$ of 21 = **12**

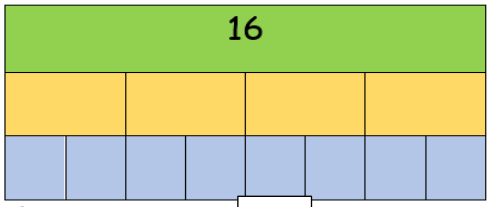


$^1/_5$ of 15 = **3**

$^1/_{10}$ of 15 = **1.5**

$^3/_5$ of 15 = **9**

$^7/_{10}$ of 15 = **7.5**



$^1/_4$ of 16 = **4**

$^1/_8$ of 16 = **2**

$^3/_4$ of 16 = **12**

$^7/_8$ of 16 = **14**

$\frac{1}{5}$ of £20 **= £4**

£20				
£4				

$\frac{1}{4}$ of £40 **= £10**

£40			
£10			

$\frac{4}{5}$ of £60 **= £48**

£60				
£12	£12	£12	£12	

$\frac{3}{4}$ of £28 **= £21**

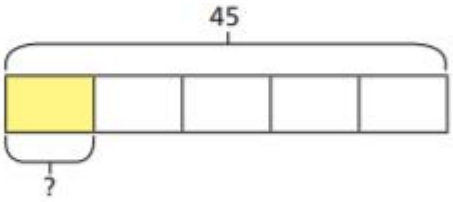
£7	£7	£7	

Medium

Annie and Mo are finding fractions of amounts.

a) Annie is trying to find $\frac{1}{5}$ of 45

She draws this bar model.

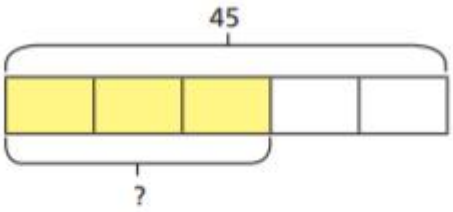


How does the bar model represent the calculation?

What is $\frac{1}{5}$ of 45?

9

b) Mo is trying to find $\frac{3}{5}$ of 45



How does the bar model represent the calculation?

What is $\frac{3}{5}$ of 45?

27

c) What is the same and what is different about Mo and Annie's questions?

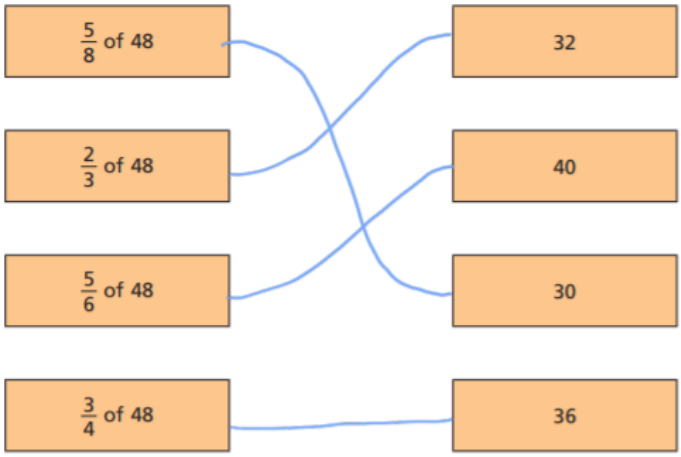
Complete the calculations.

a) $\frac{1}{3}$ of 27 = 9 b) $\frac{1}{3}$ of 72 = 24 c) $\frac{1}{3}$ of 90 = 30

$\frac{2}{3}$ of 27 = 18 $\frac{1}{6}$ of 72 = 12 $\frac{2}{6}$ of 90 = 30

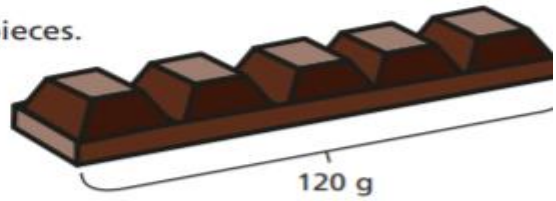
$\frac{3}{3}$ of 27 = 27 $\frac{1}{12}$ of 72 = 6 $\frac{3}{9}$ of 90 = 30

Match the calculations to the correct amounts.



A bar of chocolate has 5 equal pieces.

The whole bar weighs 120g.



How much do three pieces weigh?

a) Write two calculations that will give the answer to the problem.

$\frac{3}{5}$ of 120 $\frac{3}{5} \times 120$

b) Work out the answer.

Three pieces of chocolate weigh 72g

Spicy

$\frac{2}{5} \times 50 =$ **20**

$\frac{3}{8} \times 24 =$ **9**

$\frac{3}{5} \times 70 =$ **42**

$\frac{2}{5} \times 70 =$ **28**

$\frac{2}{7} \times 35 =$ **10**

$\frac{4}{5} \times 20 =$ **16**

$\frac{4}{7} \times 63 =$ **36**

$\frac{5}{6} \times 42 =$ **35**

$\frac{5}{8} \times 16 =$ **10**

$\frac{6}{7} \times 56 =$ **48**

$\frac{3}{7} \times 35 =$ **21**

$\frac{7}{8} \times 80 =$ **70**

Complete the calculations.

a) $\frac{5}{6} \times 12 = \frac{5}{6}$ of 12 = 10

b) $\frac{3}{4} \times 24 = \frac{3}{4}$ of 24 = 18

c) $\frac{2}{7} \times 28 = \frac{2}{7}$ of 28 = 8

d) $\frac{4}{5} \times 45 = \frac{4}{5}$ of 45 = 36

165 children and adults go on a school trip.

Two thirds of the people are children.

a) How many adults are on the school trip?

55

b) $\frac{3}{5}$ of the children are boys.

How many boys are on the school trip?

66

c) $\frac{7}{10}$ of the children have an apple for lunch.

How many children do **not** have an apple for lunch?

33

320 people were asked about their favourite flavour of ice cream.

Here is a pictogram showing the results.

vanilla	
strawberry	
chocolate	
mint choc chip	

a) How many people chose mint choc chip?

112

b) How many more people chose vanilla than chocolate?

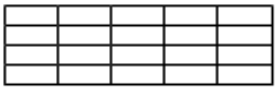
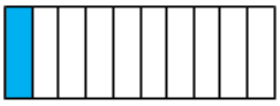
32

Friday

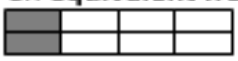
Make sure you check BBC Bitesize for the Challenge ANSWERS

Key Skills

Mild

A: Place Value, Add and Subtract		B: Multiply, Divide and Fractions
1. What is the missing number? 14 21 ☐ 35 42	*4:1* **28**	11. 11 x 12 =
2. What is the missing number? 36 42 48 54 ☐	*4:1* **60**	12. Complete the sum that is equal to 6 x 27: 6 x ☐ x 9
3. Round this number to the nearest 10: 3,192	*4:2* **3,190**	13. 59 x 7 =
4. Round this number to the nearest 100: 7,548	*4:2* **7,500**	14. One wooden block is 4cm tall. If 14 blocks are piled up, how tall are they?
5. What is the next number in this sequence: 3, 0, -3, ☐	*4:3* **-6**	15. $\frac{1}{?} = \frac{4}{20}$ 
6. Write **<** or **>** to make this correct: 1,324 ☐ 1,605	*4:4* **<**	16. Shade $\frac{1}{10}$ of this shape. 
7. What number does this Roman Numeral represent? **XLV**	*4:5* **45**	17. $\frac{19}{15} - \frac{11}{15}$
8. 4,763 + 692 =	*4:6* **5,455**	18. Write $\frac{4}{10}$ as a decimal number.
9. **Estimate** the answer to: 8,978 - 6,512	*4:7* **2,500**	19. What is the **value** of the 1 in: 8.15
10. Sarah had £35. She bought a £15 DVD and a £8 CD. How much left?	*4:8* **£12**	20. A log is 8.5 metres long. It is cut in half. How long is each piece?
Total (A)		Total (B)

Medium and Spicy

A: Place Value, Add and Subtract		B: Multiply, Divide and Fractions	
1. What is the value of the **7** in this number? 7,186,354	5:1 **7,000,000 (million)**	11. Write **all** of the factors of 26.	5:8 **1, 2, 13, 26**
2. Put these in order, smallest first: 1,012,685 99,956 867,600 1,300,423	5:1 99..., 867..., 1012..., 1300...	12. Which of the following are **prime numbers**? (17) 21 (23) 25 27	5:9 **17, 23**
3. Round 596,147 to the **nearest ten thousand.**	5:2 **600,000**	13. 4,170 ÷ 6	5:10 **695**
4. What is the missing number? 53,450 54,450 ☐ 56,450	5:2 **55,450**	14. 1.04 x 100	5:11 **104**
5. Put these in order, smallest first: -10, -3, -2, -7, -9, -6	5:3 **-10,-9,-7, -6,-3,-2**	15. What is 1^3 ?	5:12 **1**
6. What year is represented by these Roman Numerals? **MMIX**	5:4 **2009**	16. Put these in order, smallest first: $\frac{5}{6}$ $\frac{8}{12}$ $\frac{16}{18}$	5:13 $\frac{8}{12}$ $\frac{5}{6}$ $\frac{16}{18}$
7. 212,190 – 14,085 =	5:5 **198,105**	17. Find an **equivalent fraction** of $\frac{2}{8}$. 	5:14 $\frac{1}{4}$
8. 63,460 + 17,175 =	5:5 **80,635**	18. Write the answer as a **mixed number**. $\frac{12}{15} + \frac{6}{15}$	5:15 $1\frac{3}{15}$
9. Complete this sum without written working. 20,500 - 6,200 =	5:6 **14,300**	19. $\frac{5}{11}$ x 44 =	5:16 **20**
10. The temp. was -9°C. It rose by 8°C, then dropped by 10°C. What is it now?	5:7 **-11°C**	20. Write 0.83 as a fraction.	5:17 $\frac{83}{100}$
Total (A)		Total (B)	