



W.C. 11th May

Maths Answers

Monday

Multiplying fractions and mixed numbers by integers

Mild

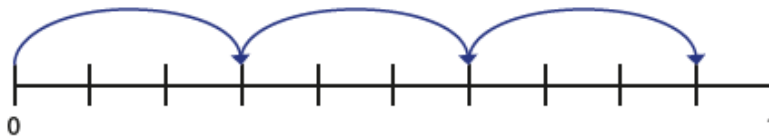
- 1 Complete the calculations.

a)

$$\frac{2}{7} \times 2 = \boxed{\frac{4}{7}}$$



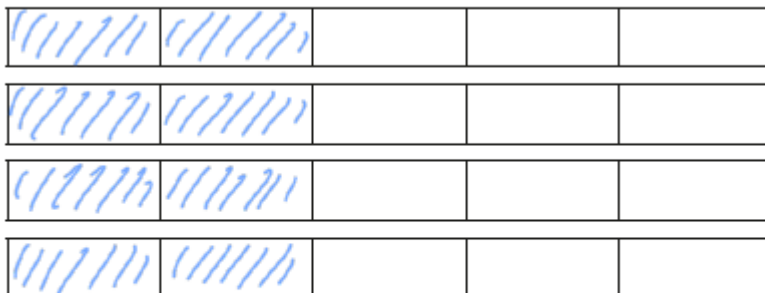
b)



$$3 \times \frac{3}{10} = \boxed{\frac{9}{10}}$$



- 2 a) Shade the bar models to show $\frac{2}{5} \times 4$



- b) Complete the multiplication.

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

Extra practice

1. $\frac{3}{5}$

2. $\frac{8}{9}$

3. $\frac{6}{7}$

4. $\frac{12}{13}$

5. $\frac{12}{17}$

6. $\frac{10}{11}$

7. $\frac{9}{20}$

8. $\frac{21}{23}$

Medium

Complete the calculations.

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

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

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

$\frac{3}{4} \times 2 = \boxed{1\frac{1}{2}}$

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

$\frac{3}{4} \times 3 = \boxed{2\frac{1}{4}}$

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

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

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

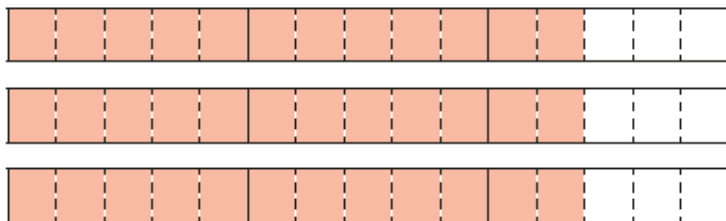
$\frac{3}{4} \times 5 = \boxed{3\frac{3}{4}}$

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

$\frac{3}{4} \times 6 = \boxed{4\frac{1}{2}}$

Complete the multiplication.

$2\frac{2}{5} \times 3 = \boxed{7\frac{1}{5}}$



Extra practice

1. $\frac{1}{3}$

2. $\frac{1}{4}$

3. $\frac{3}{4}$

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

5. $\frac{2}{3}$

6. 1

7. $\frac{1}{2}$

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

Spicy

1. $4\frac{2}{3}$

2. $4\frac{1}{8}$

3. $15\frac{1}{5}$

4. $11\frac{3}{7}$

5. 13

6. $19\frac{3}{8}$

7. $58\frac{5}{8}$

8. $27\frac{1}{3}$

Match the calculations.

$\frac{2}{3} + \frac{2}{3}$	$\frac{1}{2} \times 6$
$\frac{1}{4} \times 24$	$18 \times \frac{1}{4}$
$\frac{3}{4} + \frac{3}{4} + \frac{3}{4} + \frac{3}{4}$	$\frac{1}{6} \times 10$
$\frac{5}{12} \times 4$	$12 \times \frac{1}{2}$
$1\frac{1}{2} \times 3$	$\frac{1}{3} \times 4$

Write each answer as a mixed number in its simplest form.

a) $1\frac{1}{5} \times 2 = 2\frac{2}{5}$

d) $2\frac{2}{5} \times 5 = 12$

b) $2\frac{1}{6} \times 3 = 6\frac{1}{2}$

e) $7 \times 3\frac{1}{2} = 24\frac{1}{2}$

c) $2\frac{2}{5} \times 4 = 9\frac{3}{5}$

f) $\frac{11}{15} \times 7 = 5\frac{2}{15}$

Fill in the missing numbers.

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

b) $2\frac{\boxed{4}}{8} \times 3 = 7\frac{1}{2}$

Tommy's dog eats $3\frac{1}{2}$ tins of food a week.

How many tins does she eat in a year?

182

Tuesday

Multiply fractions by fractions

Mild

$$1) \quad \frac{1}{8} \times \frac{4}{10} = \frac{1 \times 4}{8 \times 10} = \frac{4}{80} = \frac{1}{20}$$

$$2) \quad \frac{1}{2} \times \frac{1}{8} = \frac{1 \times 1}{2 \times 8} = \frac{1}{16}$$

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

$$4) \quad \frac{4}{7} \times \frac{2}{8} = \frac{4 \times 2}{7 \times 8} = \frac{8}{56} = \frac{1}{7}$$

$$5) \quad \frac{1}{4} \times \frac{5}{9} = \frac{1 \times 5}{4 \times 9} = \frac{5}{36}$$

$$6) \quad \frac{1}{2} \times \frac{2}{3} = \frac{1 \times 2}{2 \times 3} = \frac{2}{6} = \frac{1}{3}$$

$$7) \quad \frac{1}{3} \times \frac{1}{6} = \frac{1 \times 1}{3 \times 6} = \frac{1}{18}$$

$$8) \quad \frac{3}{4} \times \frac{1}{3} = \frac{3 \times 1}{4 \times 3} = \frac{3}{12} = \frac{1}{4}$$

Fill in the missing numbers so that the calculation below makes sense.

$$\frac{\boxed{3}}{4} \times \frac{9}{\boxed{12}} = \frac{27}{48}$$

5a. Various answers, for example:

$$\frac{1}{2} \times \frac{12}{15}; \frac{2}{3} \times \frac{6}{10}; \frac{3}{5} \times \frac{4}{6}$$

6a. He has multiplied the 3 by the 8, not the 7. The answer should be:

$$\frac{21}{40}$$

Medium

5a. $\frac{18}{30}$

6a. B

7a. $\frac{1}{3}$

8a. $\frac{\boxed{9}}{11} \times \frac{2}{\boxed{4}} = \frac{18}{44}$

5b. $\frac{9}{40}$

6b. A

7b. $\frac{9}{44}$

8b. $\frac{2}{\boxed{3}} \times \frac{\boxed{6}}{7} = \frac{12}{21}$

Spicy

Complete the calculations.

a) $\frac{1}{4} \times \frac{1}{5} = \boxed{\frac{1}{20}}$

e) $\frac{3}{4} \times \frac{1}{5} = \boxed{\frac{3}{20}}$

b) $\frac{1}{5} \times \frac{1}{6} = \boxed{\frac{1}{30}}$

f) $\frac{2}{5} \times \frac{5}{6} = \boxed{\frac{1}{3}}$

c) $\boxed{\frac{1}{56}} = \frac{1}{7} \times \frac{1}{8}$

g) $\frac{5}{7} \times \frac{5}{8} = \boxed{\frac{25}{56}}$

d) $\frac{1}{8} \times \frac{1}{9} \times \frac{1}{10} = \boxed{\frac{1}{720}}$

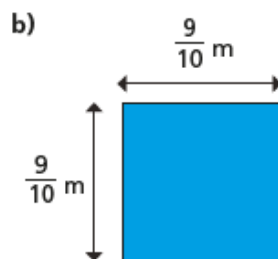
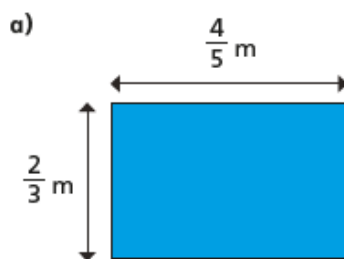
h) $\frac{3}{8} \times \frac{2}{9} \times \frac{3}{10} = \boxed{\frac{1}{40}}$

Fill in the missing numbers.

a) $\frac{1}{10} = \frac{\boxed{1}}{4} \times \frac{\boxed{2}}{5}$

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

Calculate the area of the shapes.



Area = $\boxed{\frac{8}{15}}$ m²

Area = $\boxed{\frac{81}{100}}$ m²

8a. Accept any 8 pairs of proper and improper fractions which multiply together to give the correct answer, for example:

$$\frac{1}{2} \times \frac{36}{8} = \frac{36}{16}$$

9a. She has multiplied the numerators by the opposite denominators. The answer should be:

$$\frac{88}{80} \text{ or } 1\frac{8}{80} \text{ or } 1\frac{1}{10}$$

Wednesday

Divide fractions by integers

Mild

1. $\frac{3}{5} \div 2 = \frac{3}{10}$

2. $\frac{1}{2} \div 2 = \frac{1}{4}$

3. $\frac{3}{4} \div 6 = \frac{3}{24}$
 $= \frac{1}{8}$

4. $\frac{5}{6} \div 2 = \frac{5}{12}$

5. $\frac{5}{8} \div 4 = \frac{5}{32}$

6. $\frac{1}{4} \div 7 = \frac{1}{28}$

7. $\frac{7}{8} \div 3 = \frac{7}{24}$

8. $\frac{7}{9} \div 5 = \frac{7}{45}$

Huan shares $\frac{8}{10}$ of a litre of juice equally between 4 glasses.
How much juice is in each glass?



$\frac{1}{5} \text{ L}$

The answer is $\frac{2}{10}$. C is the odd one out.

2a. Josh is correct. Kelly has divided both the numerator and denominator by 2.

Medium

1. $\frac{3}{7} \div 4 = \frac{3}{28}$

2. $\frac{1}{2} \div 7 = \frac{1}{14}$

3. $\frac{7}{25} \div 3 = \frac{7}{75}$

4. $\frac{5}{16} \div 4 = \frac{5}{64}$

5. $\frac{11}{30} \div 5 = \frac{11}{150}$

6. $\frac{2}{3} \div 8 = \frac{2}{24}$
 $= \frac{1}{12}$

7. $\frac{7}{8} \div 3 = \frac{7}{24}$

8. $\frac{7}{9} \div 5 = \frac{7}{45}$

Mo works out $\frac{10}{25} \div 5$



The answer is $\frac{2}{5}$

a) What mistake has Mo made?

He has divided the denominator.

$\frac{3}{4}$ of a kilogram of rice is divided equally between two bowls.



How much rice is in each bowl?

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

Spicy

Complete the calculations. Give your answers in their simplest form.

a) $\frac{4}{10} \div 2 = \frac{\boxed{2}}{10} = \frac{\boxed{1}}{5}$

d) $\frac{18}{45} \div 2 = \frac{\boxed{9}}{45} = \frac{\boxed{1}}{5}$

b) $\frac{10}{15} \div 2 = \frac{\boxed{5}}{15} = \frac{\boxed{1}}{3}$

e) $\frac{24}{56} \div 3 = \frac{\boxed{8}}{56} = \frac{\boxed{1}}{7}$

c) $\frac{20}{45} \div 4 = \frac{\boxed{5}}{45} = \frac{\boxed{1}}{9}$

f) $\frac{\boxed{1}}{8} = \frac{\boxed{7}}{56} = \frac{21}{56} \div 3$

Write $<$, $>$ or $=$ to complete each statement.

a) $\frac{1}{3} \div 5$ $\left(< \right)$ $\frac{1}{5} \div 3$

b) $\frac{1}{3} \div 3$ $\left(> \right)$ $\frac{1}{5} \div 5$

c) $\frac{3}{5} \div 5$ $\left(< \right)$ $\frac{3}{5} \div 3$

The answer is $\frac{9}{10}$. C is the odd one out.

The missing digit in all the calculations is the same. Find the missing digit

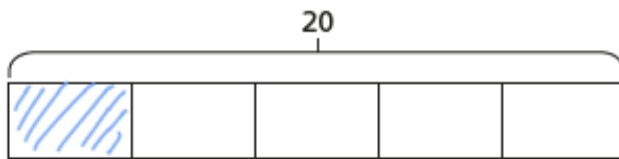
Answer is 12

Thursday

Fractions of amounts applied in context

Mild

1



a) Shade $\frac{1}{5}$ of the bar model.

b) What is $\frac{1}{5}$ of 20?

2

Use your times tables knowledge to solve the calculations.

a) $\frac{1}{3}$ of 12 =

d) $\frac{1}{10}$ of 80 cm =

b) $\frac{1}{4}$ of £20 =

e) $\frac{1}{12}$ of 60 =

c) $\frac{1}{5}$ of 35 m =

f) $\frac{1}{7}$ of 84 kg =

Now use your answers to solve these calculations.

a) $\frac{2}{3}$ of 12 =

d) $\frac{7}{10}$ of 80 cm =

b) $\frac{3}{4}$ of £20 =

e) $\frac{11}{12}$ of 60 =

c) $\frac{3}{5}$ of 35 m =

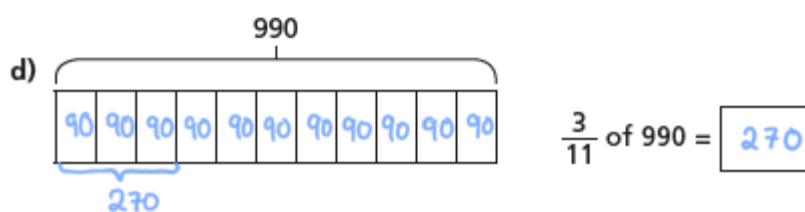
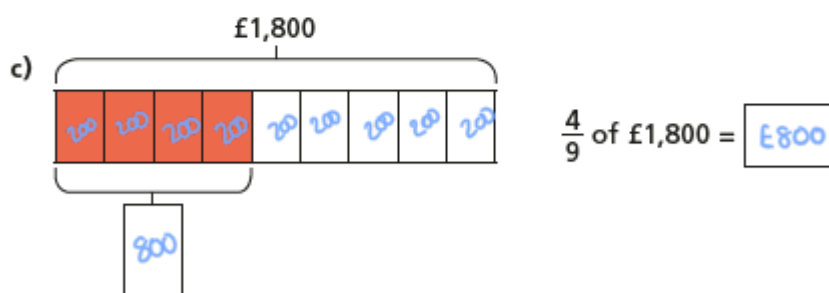
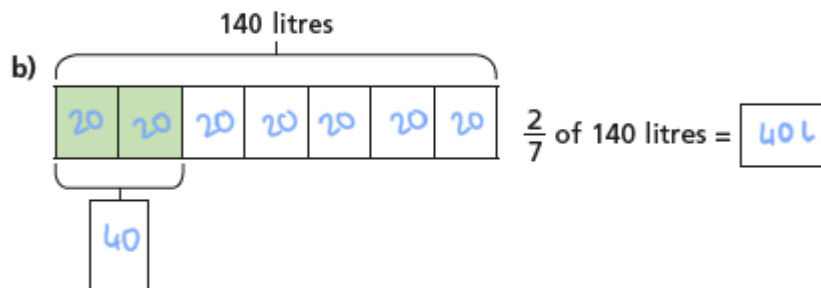
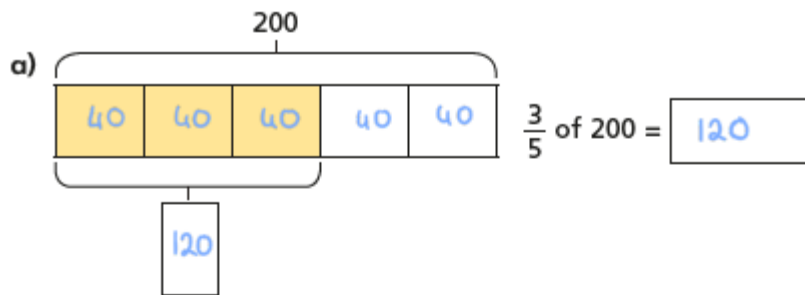
f) $\frac{6}{7}$ of 84 kg =

2a. No, Kian is not correct. He has 10 red and 16 blue stickers.

2b. No, Paula is not correct. She will have spent £5 on lunch and £9 on flowers.

Medium

Calculate the missing values.



a) In a school of 480 pupils, $\frac{2}{3}$ are juniors.

How many juniors are in the school?

320

b) A factory makes 256 cars.

$\frac{3}{8}$ are electric cars.

How many electric cars does the factory make?

96

c) Brett uses $\frac{2}{5}$ of his £180 savings to buy a train ticket.

How much of his savings does he have left?

£108

5a. Tia has read the most pages.

(Tia 360, Liam 350)

5b. Simon has spent the most money.

(Amy £5.25, Simon £5.60)

Spicy



Alex has 288 m of fence to paint.

She paints $\frac{3}{12}$ of the whole fence on Monday. She then paints $\frac{1}{2}$ of what is left on Tuesday.

How much fence does she have left to paint?

108m

Fill in the missing numbers.

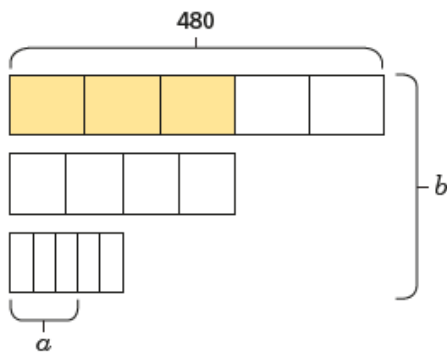
a) $\frac{3}{10}$ of \$500 = \$150

c) $42 = \frac{6}{100}$ of 700

b) $\frac{3}{4}$ of 100 kg = 75 kg

d) $450 = \frac{3}{20}$ of 3,000

Find the values of a and b .



$a = 86.4$

$b = 912$

Jack poured $\frac{7}{10}$ of a tin of paint into this jug.



How many millimetres of paint are left in the tin?

150ml

8a. Che knows the most employees.
(Che 576; Mia 480)

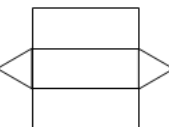
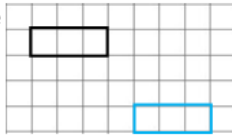
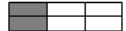
8b. Moses has the most money.
(Leo £900; Moses £1,320)

Friday

Challenge Day!

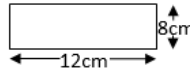
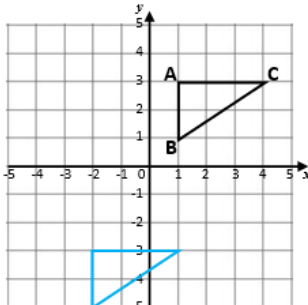
Key Skills

Mild

A: Place Value, Add and Subtract		B: Multiply, Divide and Fractions		C: Measure, Geometry and Statistics																	
1. Write < or > to make this correct: 501,234 495,837	5:1 >	11. Circle all the factors of 45. 2 4 <u>5</u> 12 <u>15</u>	5:8 5, 15	21. A <u>500 gram</u> bag of sugar costs £1.80.	5:23 £5.40																
2. Write 23,905 in words.	5:1 Twenty three thousand, nine hundred and five	12. What special name do we give a number that has exactly two factors ?	5:9 Prime	Sue needs 1.5 kilograms of sugar. How much does this cost her?																	
3. Round 163,824 to the nearest ten .	5:2 163,820	13. 4,615 ÷ 5	5:10 923	22. What shape is this a net of? 	5:24 Triangular Prism																
4. What is the missing number? 81,137 81,127 81,107	5:2 81,117	14. 50.38 x 1000	5:11 50,380																		
5. The temperature was -4°C then increased by 13°C. What is it now?	5:3 9°C	15. Circle all of the square numbers . <u>4</u> 8 <u>25</u> 30 38	5:12 4, 25	23. Translate the shape: 	5:28 Shape drawn																
6. What number is represented by these Roman Numerals? XCV	5:4 94	16. $\frac{3}{4} - \frac{7}{12} =$	5:13 $\frac{2}{12}$ or $\frac{1}{6}$	4 units right and 3 units down.																	
7. 112,498 - 48,745 =	5:5 63,753	17. Find an equivalent fraction of $\frac{2}{6}$. 	5:14 $\frac{1}{3}$	24. Complete this two-way table that shows favourite drinks of adults:	5:30																
8. 34,857 + 79,384 =	5:5 114,241	18. Write $\frac{17}{3}$ as a mixed number .	5:15 $5\frac{2}{3}$	<table border="1"><thead><tr><th></th><th>Tea</th><th>Coffee</th><th>Total</th></tr></thead><tbody><tr><td>Men</td><td>39</td><td>27</td><td>66</td></tr><tr><td>Women</td><td>31</td><td>49</td><td>80</td></tr><tr><td>Total</td><td>70</td><td>76</td><td>146</td></tr></tbody></table>		Tea	Coffee	Total	Men	39	27	66	Women	31	49	80	Total	70	76	146	Table completed
	Tea	Coffee	Total																		
Men	39	27	66																		
Women	31	49	80																		
Total	70	76	146																		
9. Complete this sum without written working. 29,750 - 4,250 =	5:6 25,500	19. $3\frac{3}{4} \times 4 =$	5:16 15																		
10. DVDs are £9.89 each. If I buy 2, how much change do I get from £30?	5:7 £10.22	20. Round 6.72 to 1 decimal place.	5:17 6.7	25. How many more women chose coffee than chose tea?	5:30 18																
Total (A)		Total (B)		Total (C)																	
Test Total (A+B+C)		R (0-9)	Y (10-19)	G (20-25)																	

Key Skills

Medium and Spicy

A: Place Value, Add, Subtract, Multiply and Divide			B: Fractions, Ratio, Proportion and Algebra			C: Measure, Position and Direction		
1. Write in words: 3,602,700	6:1 Three million, six hundred and two thousand, seven hundred		11. Simplify this fraction fully: $\frac{28}{64}$	6:7 $\frac{7}{16}$		21. 65cm are chopped off a 2.3 metre <u>tall</u> tree. How tall is it now?	6:18/19 165cm or 1.65m	
2. What is the value of the 9 in this number? 3,954,682	6:1 900,000		12. $5\frac{3}{8} - \frac{2}{3} =$	6:8 $4\frac{17}{24}$		22. How many months are there in seven years?	6:19 84	
3. Round 8,523,912 to the nearest hundred .	6:1 8,523,900		13. $\frac{3}{4} \div 6 =$	6:9 $\frac{1}{8}$		23. A square has the same perimeter as this rectangle. What is the area of the square? 	6:20 100cm²	
4. The temperature drops from 4°C to -7°C. What is the difference?	6:2 11°C		14. What is the value of the 1 in this number: 64.381	6:10 $\frac{1}{1000}$				
5. 5,140 x 25	6:3 128,500		15. Give your answer as a decimal: 97.4 ÷ 4	6:11 24.35		24. What are the co-ordinates of A ? 	6:27 (1, 3)	
6. 9,425 ÷ 13	6:3 725		16. Write this percentage as a fraction and a decimal . 15%	6:12 $\frac{3}{20}, 0.15$				
7. 9 and 21 only have two common factors . What are they?	6:4 1, 3		17. Find 15% of 270.	6:13 40.5				
8. The number 45 has two prime factors . What are they?	6:4 3, 5		18. The ratio of cats to dogs 5:3. If there are 15 dogs, how many cats?	6:14 25				
9. 3 x (25 + 13)	6:5 114		19. I share b biscuits between 2 people. Write an expression for this.	6:15 b ÷ 2				
10. How many 47-seater buses does a school need for 134 pupils and staff?	6:6 3		20. Write a possible value for a and b . a + 3 x b = 28	6:17 Any 2 that work		25. Translate triangle ABC 3 units left and 6 units down.	6:28 Shape drawn	
Total (A)			Total (B)			Total (C)		
Test Total (A+B+C)			R (0-9)		Y (10-19)	G (20-25)		