Answers for Y6 Maths (wb 18.05.20)

Morning Mental Maths

Monday	Tuesday	Wednesday	Thursday	Friday
1. 29,500	11. 126,577	21. 160,398	31. 35,112	41. 312,480
2. 120.46	12. 216.39	22. 418.33	32. 553.902	42. 546.21
3. 600	13. 574	23. 238	33. 471	43. 550
4. 1800	14. 500	24. 4100	34. 4800	44. 9100
5. 30	15. 28	25. 27	35. 42.5	45. 95
6. 1/3	16. 1/3	26. 1/2	36. 3/4	46. 1/5
7. 5/6	17. 11/12	27. 5/8	37. 8/10 or 4/5	47. 10/20 or 1/2
8. 1,15,3,5 (any 2)	18. 1,12,2,6,3,4 (any 2)	28. 1,10,2,5 (any 2)	38. 1,18,2,9,6,3 (any 2)	48. 1,20,2,10,4,5 (any 2)
9. Any no. from the 4xtable, e.g. 8.	19. Any no. from the 8xtable, e.g. 24.	29. Any no. from the 5xtable, e.g. 25.	39. Any no. from the 7xtable, e.g. 21.	49. Any no. from the 10xtable, e.g. 50.
10. 255	20. 324	30. 187	40. 417	50. 52

Monday

Answers provided at end of download

Tuesday

1 Complete the calculations.
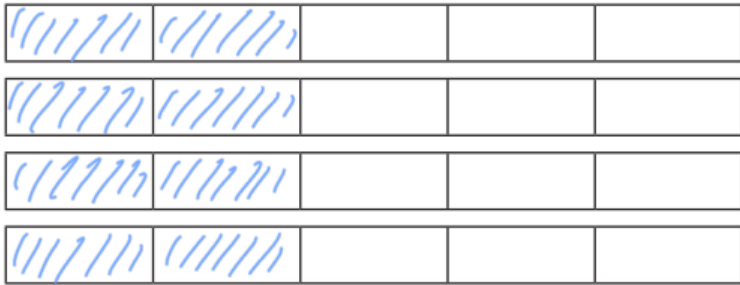
a)

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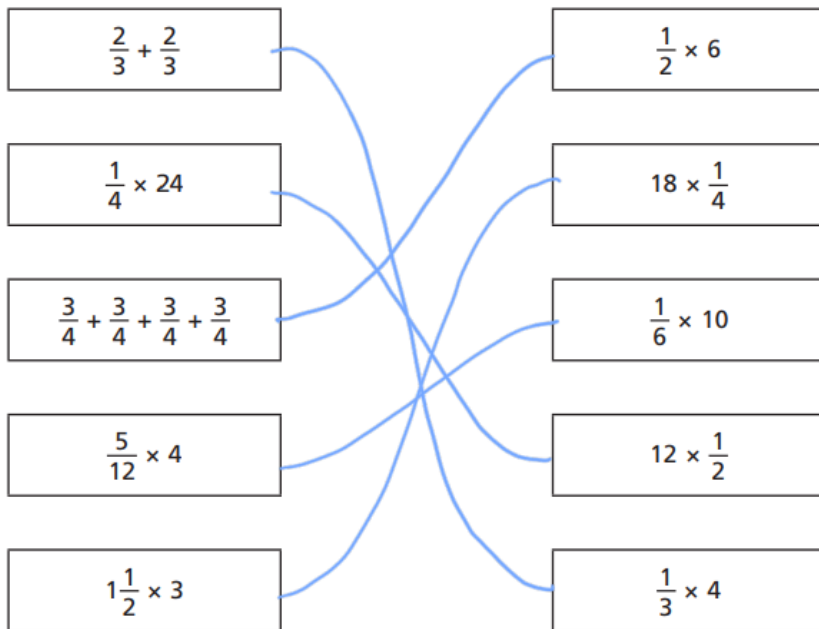

b)

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

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

b) Complete the multiplication.

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

5 Match the calculations.

| $\frac{2}{3} + \frac{2}{3}$ |
| $\frac{1}{4} \times 24$ |
| $\frac{3}{4} + \frac{3}{4} + \frac{3}{4} + \frac{3}{4}$ |
| $\frac{5}{12} \times 4$ |
| $1\frac{1}{2} \times 3$ |

| $\frac{1}{2} \times 6$ |
| $18 \times \frac{1}{4}$ |
| $\frac{1}{6} \times 10$ |
| $12 \times \frac{1}{2}$ |
| $\frac{1}{3} \times 4$ |

3 Complete the calculations.

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

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

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

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

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

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

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

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

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

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

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

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

What patterns do you notice?

9

$3\frac{1}{6}$ ft

$2\frac{1}{2}$ ft
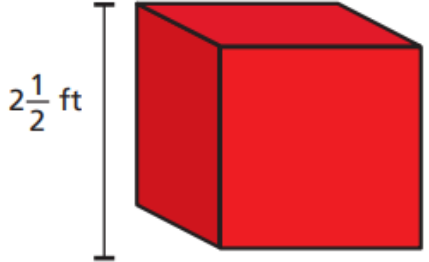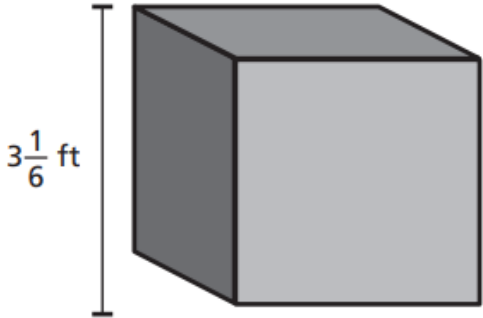
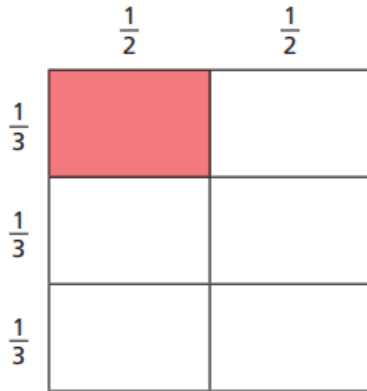Jack builds a tower using grey blocks.

Alex builds a tower using red blocks.

The towers are exactly the same height.

How many blocks could they each have used?

Jack could use 15 and Alex use 19

1 Dexter works out $\frac{1}{2} \times \frac{1}{3}$ using a grid method.

$$\frac{1}{2} \qquad \frac{1}{2}$$
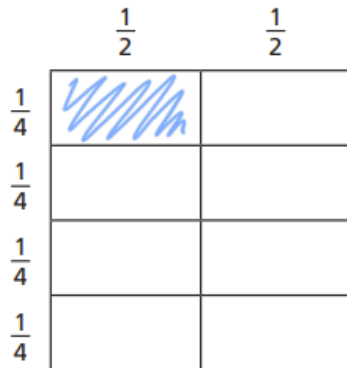
$$\frac{1}{3}$$
$$\frac{1}{3}$$
$$\frac{1}{3}$$

Explain how this shows $\frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$

Split into halves vertically and thirds horizontally. $\frac{1}{6}$ of the whole shape is shaded.

2 Shade the diagrams to show the fraction multiplications.

Complete the multiplications.

a) $\frac{1}{2} \times \frac{1}{4} = \boxed{\frac{1}{8}}$

$$\frac{1}{2} \qquad \frac{1}{2}$$

$$\frac{1}{4}$$
$$\frac{1}{4}$$
$$\frac{1}{4}$$
$$\frac{1}{4}$$

4 Complete the calculations.

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

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

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

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

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

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

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

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

5 Use the diagram to complete the calculations.

a) $\frac{1}{3}$ of $\frac{1}{4} = \boxed{\frac{1}{12}}$

b) $\frac{2}{3}$ of $\frac{3}{4} = \boxed{\frac{1}{2}}$
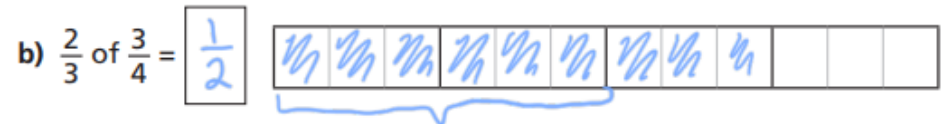
c) What do you notice about your answers?

   Talk to your partner.

6 Fill in the missing numbers.

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

b) $\dfrac{1}{5} \times \dfrac{\boxed{2}}{3} = \dfrac{2}{15}$

7 Fill in the missing numbers.

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

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

Thursday

2 Complete the divisions using the diagrams to help you.

a) $\frac{1}{3} \div 2 = \boxed{\frac{1}{6}}$

b) $\frac{1}{3} \div 3 = \boxed{\frac{1}{9}}$

c) $\frac{2}{3} \div 3 = \boxed{\frac{2}{9}}$

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

Rice

How much rice is in each bowl?

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

4 Work out the divisions.

a) $\frac{1}{5} \div 7 = \boxed{\frac{1}{35}}$

b) $\boxed{\frac{1}{18}} = \frac{1}{6} \div 3$

c) $\frac{1}{4} \div 9 = \boxed{\frac{1}{36}}$

d) $\boxed{\frac{1}{42}} = \frac{1}{7} \div 6$

e) $\frac{4}{9} \div 7 = \boxed{\frac{4}{63}}$

f) $\boxed{\frac{5}{72}} = \frac{5}{6} \div 12$

g) $\frac{8}{3} \div 7 = \boxed{\frac{8}{21}}$

h) $\boxed{\frac{19}{100}} = \frac{19}{20} \div 5$

i) $\frac{1}{100} \div 25 = \boxed{\frac{1}{2,500}}$

j) $\boxed{\frac{9}{200}} = \frac{45}{50} \div 20$

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

a) $\frac{1}{3} \div 5$ $\boxed{=}$ $\frac{1}{5} \div 3$

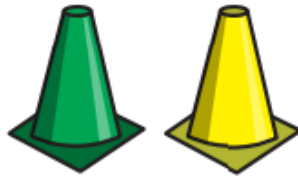b) $\frac{1}{3} \div 3$ $\boxed{>}$ $\frac{1}{5} \div 5$

c) $\frac{3}{5} \div 5$ $\boxed{<}$ $\frac{3}{5} \div 3$

6 There are some cones in the PE shed.

Classes 1, 2 and 3 share them equally.

- Class 1 put theirs into 4 equal piles.
- Class 2 put theirs into 5 equal piles.
- Class 3 put theirs into 11 equal piles.

What fraction of the whole number of cones is in each pile?

	Fraction in each pile
Class 1	$\frac{1}{12}$
Class 2	$\frac{1}{15}$
Class 3	$\frac{1}{33}$

7 **a)** Which of these statements are true? Tick your answers.

$\frac{1}{2} \div 2$ is equal to $\frac{1}{2} \times \frac{1}{2}$ ✓

$\frac{1}{2} \div 4 = \frac{1}{2} \times \frac{1}{4}$ ✓

$\frac{1}{2} \div 3 = \frac{1}{2} \times \frac{1}{3}$ ✓

$\frac{1}{2} \div 5 = \frac{1}{2} \times \frac{1}{5}$ ✓

Friday

2 Use your times tables knowledge to solve the calculations.

a) $\frac{1}{3}$ of 12 = **4**

d) $\frac{1}{10}$ of 80 cm = **8 cm**

b) $\frac{1}{4}$ of £20 = **£5**

e) $\frac{1}{12}$ of 60 = **5**

c) $\frac{1}{5}$ of 35 m = **7 m**

f) $\frac{1}{7}$ of 84 kg = **12kg**

Now use your answers to solve these calculations.

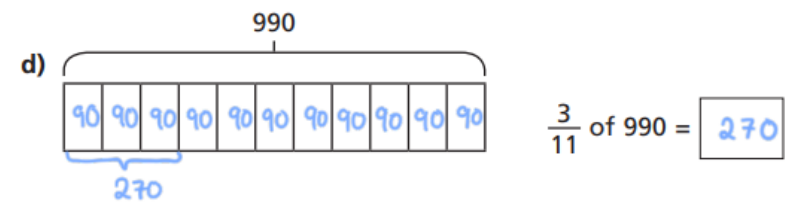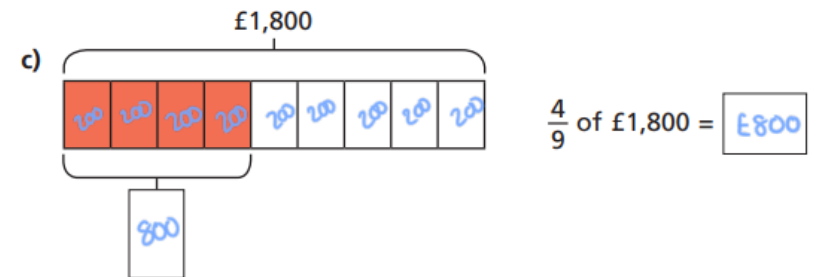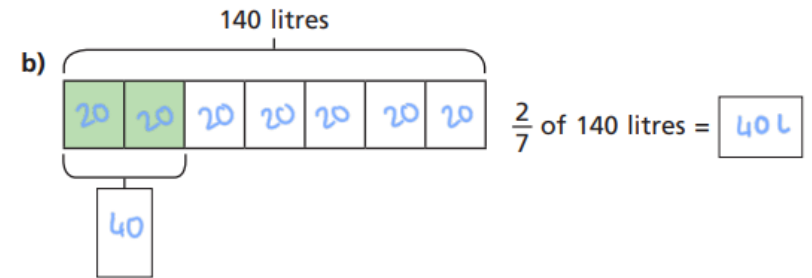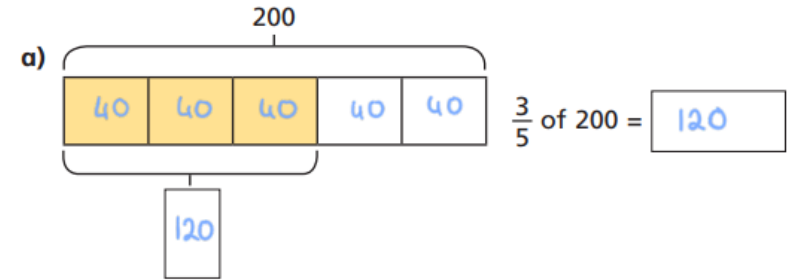a) $\frac{2}{3}$ of 12 = **8**

d) $\frac{7}{10}$ of 80 cm = **56cm**

b) $\frac{3}{4}$ of £20 = **£15**

e) $\frac{11}{12}$ of 60 = **55**

c) $\frac{3}{5}$ of 35 m = **21m**

f) $\frac{6}{7}$ of 84 kg = **72kg**

3 Calculate the missing values.

a)

200

| 40 | 40 | 40 | 40 | 40 |

120

$\frac{3}{5}$ of 200 = **120**

b)

140 litres

| 20 | 20 | 20 | 20 | 20 | 20 | 20 |

40

$\frac{2}{7}$ of 140 litres = **40 L**

c)

£1,800

| 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |

800

$\frac{4}{9}$ of £1,800 = **£800**

d)

990

| 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 | 90 |

270

$\frac{3}{11}$ of 990 = **270**

4 **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

5

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
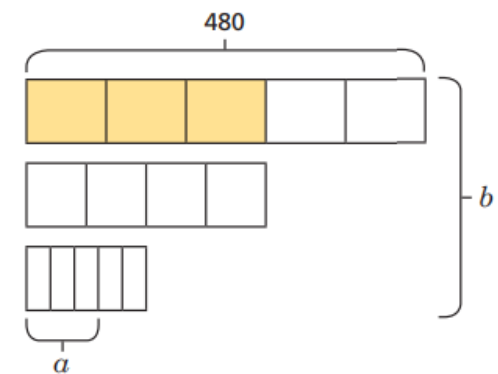
6 Fill in the missing numbers.

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

7 Find the values of a and b.

$a =$ 86·4 $b =$ 912