## Second Level Maths Tasks

## Week beginning 1.3.2021

### Maths Homework Options

To keep your mental maths up to scratch, keep working through your maths options sheets.

---

The answer is...

**24**

What could the question be? Think addition, subtraction, multiplication, division, fraction, percentages, money, decimal numbers - make up word problems. Be as creative as you can!

(see example below...)

---

### Word Problems

Work through the word problems on page 6. Remember to draw pictures/diagrams to help you think through what the problems is asking you, and whether that means you need to add, subtract, multiply or divide (you might even have to do more than one of them).

---

### 5-a-day

I've put some number problems on the next sheet, you can choose 5 each day to work on like we would in class.

Remember to challenge yourself!

---

### Fractions and Percentages week 3

### **don't do until you have completed weeks 1 and 2!**

This week we will be learning to...

*...recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred'.*

Watch the first video in this link—

https://www.bbc.co.uk/bitesize/articles/zvcny9q



Percent means "out of 100", so when we talk about percentages we are saying what how many out of 100. In the above pictures, 5 out of the 100 square are coloured orange, so 5% is orange. 35 out of 100 are green, so 35% is green. 25 out of 100 are yellow, so 25% is yellow.

What percentage is shaded on each shape on page 3?

*...convert percentages to fractions*

Percentages and fractions are related to each other—in fact, percentages and fractions can mean the same thing.
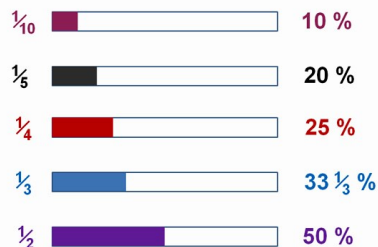
When we talk about percentages, we mean how many out of 100—so 10% is 10 out of 100, which means it is 10/100. We can then simplify that fraction—both the top and bottom divide by 10, so it simplifies to 1/10. We can therefore see that 10% is equal to 1/10.

Convert the percentages on page 4 into fractions.

*...recall common percentages as fractions*

There are some percentages that are useful to learn as fractions because they crop up a lot in daily life—in shop discounts, in data we are shown in the media, in banking and finance, and in many more places. They can also be used to help us work out other, trickier percentages without a calculator, so it can be useful to memorise them. They are:

**Common Fractions & Percentages**

| Fraction | | Percentage |
|---|---|---|
| $\frac{1}{10}$ | | 10 % |
| $\frac{1}{5}$ | | 20 % |
| $\frac{1}{4}$ | | 25 % |
| $\frac{1}{3}$ | | 33 ⅓ % |
| $\frac{1}{2}$ | | 50 % |

Use the cards on page 5 to play pairs or snap to help you remember these.

# <u>5-a-day</u>

Choose a level of challenge, choose a row to do each day

## Mild

- 3638 + 3799       83628-33896       6357 x 7      392÷4        7x8 > 5x12, true or false?
- 72993+2636        28388-10028       7257 x 5      427÷7        24, 28, 32, ___, ___
- 29374+86628       60992-27993       4037 x 8      510÷6        1/8 of 24

## Medium

- 537.94 + 8849.3    495.2—49.4        04.48 x 7       196.6÷6        7.2x10 > 8x9, true or false?
- 736.5 + 38.85       478.3-84.45       7738.4x9        258.3÷7        15.1, 15.2, 15.3, ___, ____
- 635.88 + 629.9     748.4–34.99       4097.47 x 6     598.4÷8        2/7 of 49

## Spicy

- 46.3 + 839.38 + 7.498     475-8.736       27x88       770÷8        which is bigger, 20% or 1/2?
- 478.2 + 773.8 + 4.737     738-8.843       35x78       1467÷4       10, 6, 4, ____, _____, _____
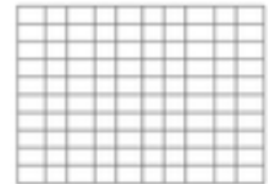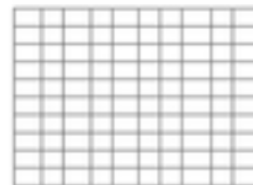- 8.35 + 377.5 + 48.9       84.4—0.779      45x66       67.3÷2       25% of 420
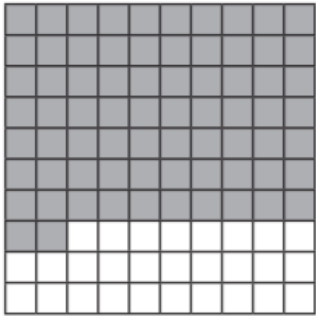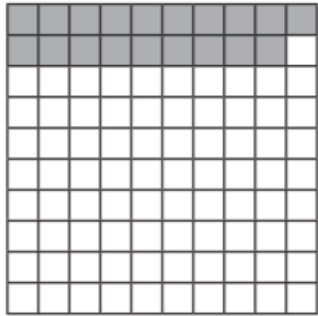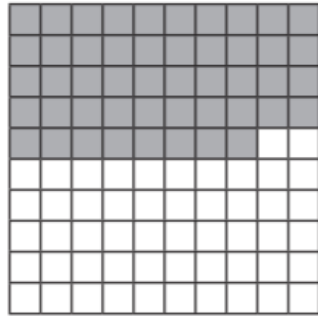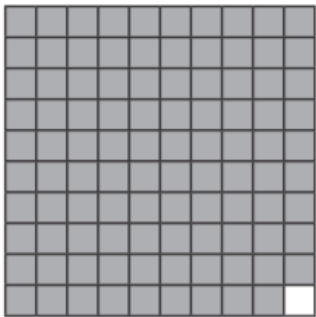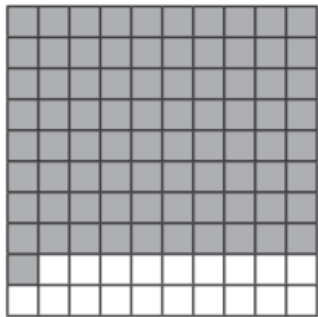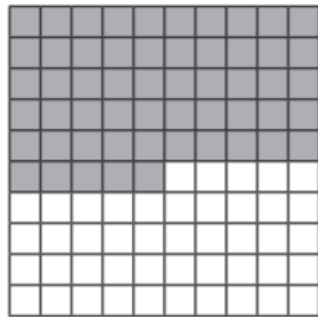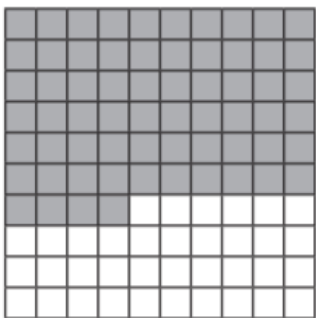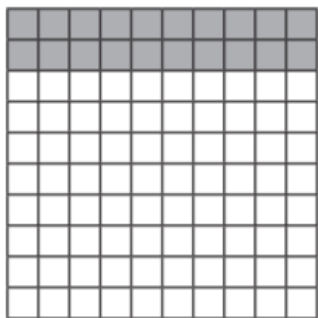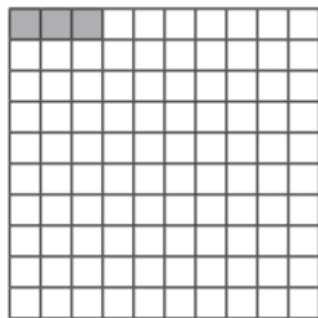
55%

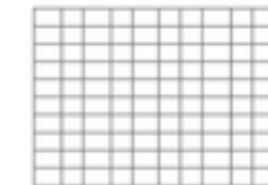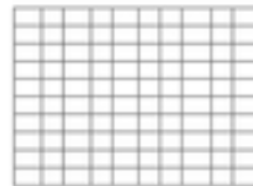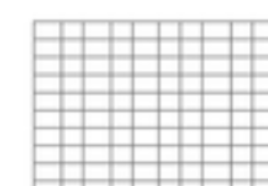$$= \frac{55}{100}$$

64%

=

38%

=

15%

=

70%

=

40%

=

25%

=

90%

=

# Converting Percentages to Fractions

Convert the following percentages to their equivalent fractions. The first one has been done for you.

1. 90% = $\dfrac{90}{100}$

2. 33% = —

3. 4% = —

4. 17% = —

5. 61% = —

6. 35% = —

7. 44% = —

8. 23% = —

9. 53% = —

10. 9% = —

11. 69% = —

12. 22% = —

13. 5% = —

14. 80% = —

15. 63% = —

16. 46% = —

17. 93% = —

18. 85% = —

19. 39% = —

20. 60% = —

21. 64% = —

22. 54% = —

23. 48% = —

24. 31% = —

25. 2% = —

26. 34% = —

27. 69% = —

Remember to check if it can be simplified!

90/100 can be simplified, because 90 and 100 are both on the 10 times table, so we can divide them both by 10.

90 ÷ 10 = 9.

100 ÷ 10 = 10.

So the fraction can be simplified to 9/10.

Not all of these percentages can be simplified when you change them to fractions, but quite a few can.

| | | | | | |
|---|---|---|---|---|---|
| 1/2 | 1 whole | 25% | 50% | 100% | 1/4 |
| 10% | 1/5 | 33.3% | 1/10 | 1/3 | 1/2 |
| 1/4 | 20% | 50% | 20% | 25% | 1/5 |

8+7=

2+13=

-10+25=

6+12-3+=

1500-1485=

17.5-2.5=

1.38+13.62=

45  divided by 3

120 divided by 8

1500 divided by 100

150 divided  by 10

Half of 30

One quarter of 60

1/3 of 45

1/10 of 150

1/6 of 90

The answer is 15. What is the question?

Sam spent £8.50 on a game and ££6.50 on his lunch. How much did he spend altogether?

There were 60 pupils in a school. 25% walked to school every day. How many walked to school.

5 x 3=        1 x 15=

3 x 5=        15 x 1=

1.5 x 10=        0.15 x 100=        0.015x 1000=

# Word Problems

Orla buys 6 pencils for £1.92. Josie buys 3 pencils and 1 rubber for £1.21. How much must 1 pencil cost?

A stack of 40 identical toy boxes is 1000cm tall. Bruce takes off the top 3 boxes from the pile. How tall is it now?

Miss Dale orders us 12 new boxes of dice. Each box contains 6 bags of dice. Each bag contains 35 dice. How many new dice has Miss Dale bought?

Dakota and Esmae decide to make jam to sell for Gala day. Blackberries cost £5.50 per kilo. Sugar costs 65p per kilo. They use 16kg of blackberries and 10kg of sugar to make 15 jars of jam. How much does it cost to make 15 jars of jam?

Caspian thinks of a number. He multiplies the number by 100 and divides it by 8. Then he adds 6.50. The answer is 1206.5. What number did he start with?

Eight small bricks have the same mass as 3 large bricks. The mass of 1 small brick is 1.5kg. What is the mass of 1 large brick?

A bag of 4 grapefruit costs £2.40. A bag of 5 bananas costs £1. How much more does 1 grapefruit cost than 1 banana?