



# TOTAL RECALL

The Practice Book



# TOTAL RECALL

Number  
bonds to 5

One more,  
one less to  
10

Number  
bonds to 10

One more,  
one less to  
20

Number  
bonds to 20

Doubling  
and halving  
to 20

Crossing  
boundaries  
+ and -

Number  
bonds to  
100

Times  
Tables  
2x, 5x, 10x

Times Tables  
3x, 6x, 4x, 8x

Times  
Tables  
7x, 9x, 11x

10x table plus  
total recall of  
all times tables  
and number  
bonds to 100



Converting  
measures



**Zebra** - division tables facts 2, 3, 4, 5, 10 and 11.

**Tiger** - division tables facts 6, 7, 8, 9 and 12.

**Leopard** - multiplying and dividing whole and decimal numbers by 10, 50, 100 and 1000.

**Polka Dot (Shape)** - name and describe properties of 2D and 3D shapes; Use terminology (face, edge, vertex).

**Rainbow (Time)** - days in a week; months in a year; seconds, hours, minutes; tell the time to 5 minutes on a 12 hour and 24 hour clock.

Number  
bonds to 5

# Turquoise Badge



Recalling number bonds to 5 -including subtraction facts.

1.  $2 + \_ = 5$

9.  $5 - 1 = \_$

2.  $\_ + 0 = 5$

10.  $5 - 2 = \_$

3.  $4 + \_ = 5$

11.  $5 - 0 = \_$

4.  $1 + \_ = 5$

12.  $5 - 3 = \_$

5.  $3 + \_ = 5$

13.  $5 - 4 = \_$

6.  $5 + \_ = 5$

14.  $5 - 2 = \_$

7.  $2 + \_ = 5$

15.  $5 - 1 = \_$

8.  $\_ + 4 = 5$

16.  $5 - 2 = \_$

Remember to practice in a range of ways but to get your badge you will need to answer aloud.





# Purple Badge



One more and one less to 10.

## Practise Questions:

1.  $3 + 1 = \underline{\quad}$

2.  $7 - 1 = \underline{\quad}$

3.  $2 + 1 = \underline{\quad}$

4.  $9 - 1 = \underline{\quad}$

5.  $5 + 1 = \underline{\quad}$

6.  $8 - 1 = \underline{\quad}$

7.  $6 + 1 = \underline{\quad}$

8.  $4 - 1 = \underline{\quad}$

9.  $1 + 1 = \underline{\quad}$

10.  $10 - 1 = \underline{\quad}$

11.  $9 + 1 = \underline{\quad}$

12.  $2 - 1 = \underline{\quad}$

13.  $3 + 1 = \underline{\quad}$

14.  $6 - 1 = \underline{\quad}$

15.  $7 - 1 = \underline{\quad}$

16.  $1 + 1 = \underline{\quad}$

17.  $8 - 1 = \underline{\quad}$

18.  $4 + 1 = \underline{\quad}$

19.  $10 - 1 = \underline{\quad}$

20.  $5 - 1 = \underline{\quad}$

## Word problems:

1. What is one more than 3?
2. What is one less than 7?
3. If you have 2 apples and you get one more, how many do you now have?



# Orange Badge



Number bonds to 10.

## Practise Questions:

1.  $7 + \_ = 10$

2.  $10 - \_ = 4$

3.  $2 + \_ = 10$

4.  $10 - \_ = 8$

5.  $5 + \_ = 10$

6.  $10 - \_ = 3$

7.  $\_ + 6 = 10$

8.  $10 - \_ = 2$

9.  $9 + \_ = 10$

10.  $10 - \_ = 7$

11.  $\_ + 4 = 10$

12.  $10 - \_ = 6$

13.  $3 + \_ = 10$

14.  $10 - \_ = 5$

15.  $6 + \_ = 10$

16.  $10 - \_ = 1$

17.  $8 + \_ = 10$

18.  $10 - \_ = 9$

19.  $\_ + 2 = 10$

20.  $10 - \_ = 0$

## Word problems:

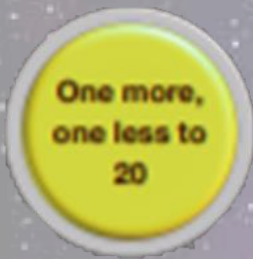
1. How many to make 10?

2. What plus 3 equals 10?

3. Subtract from 10: 6?

4. What added to 5 makes 10?

5. Find the missing number:  $? + 7 = 10$



# Yellow Badge



Find one more or one less to 20.

## Practise Questions:

1.  $\_ + 7 = 8$

2.  $15 - \_ = 14$

3.  $\_ + 9 = 10$

4.  $13 - \_ = 12$

5.  $\_ + 4 = 5$

6.  $18 - \_ = 17$

7.  $\_ + 11 = 12$

8.  $19 - \_ = 18$

9.  $\_ + 10 = 11$

10.  $20 - \_ = 19$

11.  $\_ + 3 = 4$

12.  $16 - \_ = 15$

13.  $\_ + 6 = 7$

14.  $12 - \_ = 11$

15.  $\_ + 5 = 6$

16.  $17 - \_ = 16$

17.  $\_ + 8 = 9$

18.  $14 - \_ = 13$

19.  $\_ + 1 = 2$

20.  $20 - \_ = 19$

## Word problems:

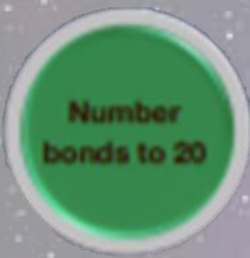
1. What is one more than 17?

2. What is one less than 12?

3. If you have fourteen balloons and you get one more, how many do you have?

4. If you have 15 pencils and you lose one, how many do you have left?

5. If you have eleven cookies and you eat one, how many do you have left?



# Green Badge



Number bonds to 20.

## Practise Questions:

1.  $\_ + 10 = 20$

2.  $\_ + 11 = 20$

3.  $\_ + 12 = 20$

4.  $\_ + 13 = 20$

5.  $\_ + 14 = 20$

6.  $\_ + 15 = 20$

7.  $\_ + 16 = 20$

8.  $\_ + 17 = 20$

9.  $\_ + 18 = 20$

10.  $\_ + 19 = 20$

11.  $\_ + 0 = 20$

12.  $\_ + 9 = 20$

13.  $\_ + 8 = 20$

14.  $\_ + 7 = 20$

15.  $\_ + 6 = 20$

16.  $\_ + 5 = 20$

17.  $\_ + 4 = 20$

18.  $\_ + 3 = 20$

19.  $\_ + 2 = 20$

20.  $\_ + 1 = 20$

## Word problems:

1. Tom has 15 marbles. How many more marbles does he need to have 20?

2. Sarah eats some biscuits from a box of 20. There are 16 left, how many did she eat?

3. There are 13 books on the shelf. If three more books are added to the shelf, how many more books would you need to have 20?





# Red Badge



Doubling and halving to 20.

## Practise Questions:

### Double:

1. 4
2. 8
3. 9
4. 2
5. 6
6. 7
7. 3
8. 5
9. 10
10. 1

### Halve:

1. 16
2. 8
3. 6
4. 12
5. 14
6. 20
7. 18
8. 2
9. 14
10. 16

## Word problems:

1. If Sarah has 8 cookies and she doubles the amount, how many cookies does she have now?
2. Tom has 16 marbles. If he shares them equally with his friend, how many marbles does each of them get?
3. A farmer has 9 sheep. If each sheep gives birth to a lamb, how many sheep are there in total now?





# White Badge



Addition and subtraction of a single digit number that crosses a tens boundary in numbers up to 100.

## Practise Questions:

1.  $37 + 6 = \underline{\quad}$

13.  $75 - 8 = \underline{\quad}$

2.  $29 + 4 = \underline{\quad}$

14.  $12 - 9 = \underline{\quad}$

3.  $16 + 9 = \underline{\quad}$

15.  $41 - 7 = \underline{\quad}$

4.  $8 + 5 = \underline{\quad}$

16.  $66 - 9 = \underline{\quad}$

5.  $25 + 8 = \underline{\quad}$

17.  $26 - 8 = \underline{\quad}$

6.  $77 + 9 = \underline{\quad}$

18.  $74 - 5 = \underline{\quad}$

7.  $34 + 9 = \underline{\quad}$

19.  $85 + 6 = \underline{\quad}$

8.  $53 + 8 = \underline{\quad}$

20.  $17 + 4 = \underline{\quad}$

9.  $35 - 8 = \underline{\quad}$

21.  $86 + 7 = \underline{\quad}$

10.  $20 - 3 = \underline{\quad}$

22.  $23 + 8 = \underline{\quad}$

11.  $43 - 6 = \underline{\quad}$

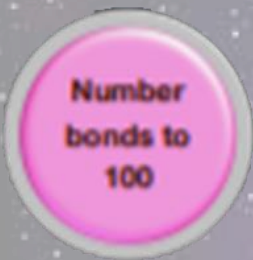
23.  $57 + 5 = \underline{\quad}$

12.  $67 - 4 = \underline{\quad}$

24.  $15 + 9 = \underline{\quad}$

## Word problems:

1. Sarah sold 27 cups of lemonade in the morning and 6 cups in the afternoon. How many cups of lemonade did she sell in total?
2. Tim has 49 toy cars, and he buys 6 more. How many toy cars does he have now?



# Pink Badge

Number bonds to 100.



## Practise Questions:

- |                     |                     |
|---------------------|---------------------|
| 1. $\_ + 90 = 100$  | 16. $\_ + 25 = 100$ |
| 2. $\_ + 80 = 100$  | 17. $\_ + 19 = 100$ |
| 3. $\_ + 70 = 100$  | 18. $\_ + 5 = 100$  |
| 4. $\_ + 60 = 100$  | 19. $\_ + 78 = 100$ |
| 5. $\_ + 50 = 100$  | 20. $\_ + 67 = 100$ |
| 6. $\_ + 40 = 100$  | 21. $\_ + 56 = 100$ |
| 7. $\_ + 30 = 100$  | 22. $\_ + 24 = 100$ |
| 8. $\_ + 20 = 100$  | 23. $\_ + 33 = 100$ |
| 9. $\_ + 28 = 100$  | 24. $\_ + 22 = 100$ |
| 10. $\_ + 85 = 100$ | 25. $\_ + 11 = 100$ |
| 11. $\_ + 75 = 100$ | 26. $\_ + 79 = 100$ |
| 12. $\_ + 65 = 100$ | 27. $\_ + 68 = 100$ |
| 13. $\_ + 52 = 100$ | 28. $\_ + 57 = 100$ |
| 14. $\_ + 45 = 100$ | 29. $\_ + 46 = 100$ |
| 15. $\_ + 35 = 100$ | 30. $\_ + 24 = 100$ |

## Word problems:

1. There are 32 slices of cake left at a party. If there were originally 100 slices, how many slices of cake were eaten?
2. A library has 100 books on two shelves. If there are 65 books on one shelf, how many books are there on the other?



# Bronze Badge



Times tables: 2x, 5x and 10x.

## Practise Questions:

- |                                       |  |
|---------------------------------------|--|
| 1. $2 \times 4 = \underline{\quad}$   | 16. $2 \times 5 = \underline{\quad}$   |
| 2. $5 \times 6 = \underline{\quad}$   | 17. $5 \times 4 = \underline{\quad}$   |
| 3. $10 \times 9 = \underline{\quad}$  | 18. $10 \times 2 = \underline{\quad}$  |
| 4. $2 \times 7 = \underline{\quad}$   | 19. $2 \times 3 = \underline{\quad}$   |
| 5. $5 \times 3 = \underline{\quad}$   | 20. $5 \times 8 = \underline{\quad}$   |
| 6. $10 \times 8 = \underline{\quad}$  | 21. $10 \times 6 = \underline{\quad}$  |
| 7. $2 \times 9 = \underline{\quad}$   | 22. $2 \times 10 = \underline{\quad}$  |
| 8. $5 \times 2 = \underline{\quad}$   | 23. $5 \times 7 = \underline{\quad}$   |
| 9. $10 \times 5 = \underline{\quad}$  | 24. $10 \times 4 = \underline{\quad}$  |
| 10. $2 \times 6 = \underline{\quad}$  | 25. $2 \times 2 = \underline{\quad}$   |
| 11. $5 \times 9 = \underline{\quad}$  | 26. $5 \times 10 = \underline{\quad}$  |
| 12. $10 \times 3 = \underline{\quad}$ | 27. $10 \times 1 = \underline{\quad}$  |
| 13. $2 \times 8 = \underline{\quad}$  | 28. $2 \times 1 = \underline{\quad}$   |
| 14. $5 \times 5 = \underline{\quad}$  | 29. $5 \times 1 = \underline{\quad}$   |
| 15. $10 \times 7 = \underline{\quad}$ | 30. $10 \times 10 = \underline{\quad}$ |



Times Tables Rock Stars can be a great tool to help you practise for this badge.





# Silver Badge



Times tables: 3x, 4x, 6x and 8x .

## Practise Questions:

1.  $3 \times 7 = \underline{\quad}$

2.  $4 \times 5 = \underline{\quad}$

3.  $6 \times 8 = \underline{\quad}$

4.  $8 \times 9 = \underline{\quad}$

5.  $3 \times 4 = \underline{\quad}$

6.  $4 \times 9 = \underline{\quad}$

7.  $6 \times 5 = \underline{\quad}$

8.  $8 \times 2 = \underline{\quad}$

9.  $3 \times 3 = \underline{\quad}$

10.  $4 \times 7 = \underline{\quad}$

11.  $6 \times 3 = \underline{\quad}$

12.  $8 \times 6 = \underline{\quad}$

13.  $3 \times 8 = \underline{\quad}$

14.  $4 \times 3 = \underline{\quad}$

15.  $6 \times 10 = \underline{\quad}$

16.  $8 \times 5 = \underline{\quad}$

17.  $3 \times 6 = \underline{\quad}$

18.  $4 \times 2 = \underline{\quad}$

19.  $6 \times 7 = \underline{\quad}$

20.  $8 \times 4 = \underline{\quad}$

21.  $3 \times 9 = \underline{\quad}$

22.  $4 \times 10 = \underline{\quad}$

23.  $6 \times 2 = \underline{\quad}$

24.  $8 \times 7 = \underline{\quad}$

25.  $3 \times 5 = \underline{\quad}$

26.  $4 \times 8 = \underline{\quad}$

27.  $6 \times 4 = \underline{\quad}$

28.  $8 \times 3 = \underline{\quad}$

29.  $3 \times 10 = \underline{\quad}$

30.  $4 \times 6 = \underline{\quad}$



Have you used Garage on Times Tables Rock Stars to make sure that you have covered questions you're unsure of?



# Gold Badge



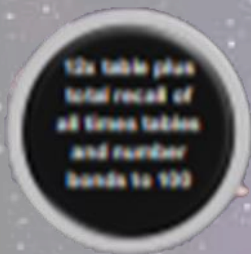
Times tables: 7x, 9x and 11x.

## Practise Questions:

- |  |  |
|--|--|
| 1. $7 \times 8 = \underline{\quad}$    | 16. $7 \times 10 = \underline{\quad}$  |
| 2. $9 \times 3 = \underline{\quad}$    | 17. $9 \times 7 = \underline{\quad}$   |
| 3. $11 \times 4 = \underline{\quad}$   | 18. $11 \times 8 = \underline{\quad}$  |
| 4. $7 \times 6 = \underline{\quad}$    | 19. $7 \times 5 = \underline{\quad}$   |
| 5. $9 \times 8 = \underline{\quad}$    | 20. $9 \times 2 = \underline{\quad}$   |
| 6. $11 \times 7 = \underline{\quad}$   | 21. $11 \times 12 = \underline{\quad}$ |
| 7. $7 \times 2 = \underline{\quad}$    | 22. $7 \times 11 = \underline{\quad}$  |
| 8. $9 \times 10 = \underline{\quad}$   | 23. $9 \times 5 = \underline{\quad}$   |
| 9. $11 \times 0 = \underline{\quad}$   | 24. $11 \times 2 = \underline{\quad}$  |
| 10. $7 \times 9 = \underline{\quad}$   | 25. $7 \times 4 = \underline{\quad}$   |
| 11. $9 \times 6 = \underline{\quad}$   | 26. $9 \times 11 = \underline{\quad}$  |
| 12. $11 \times 9 = \underline{\quad}$  | 27. $11 \times 3 = \underline{\quad}$  |
| 13. $7 \times 3 = \underline{\quad}$   | 28. $7 \times 7 = \underline{\quad}$   |
| 14. $9 \times 4 = \underline{\quad}$   | 29. $9 \times 9 = \underline{\quad}$   |
| 15. $11 \times 11 = \underline{\quad}$ | 30. $11 \times 8 = \underline{\quad}$  |



Jamming is a useful mode in Times Tables Rockstars when you're practising specific tables.



# Black Badge



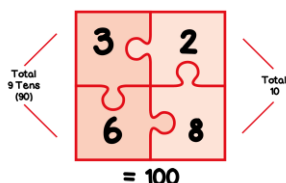
All times tables and number bonds to 100.

## Times Table Practise Questions:

- |                                       |                                       |
|---------------------------------------|---------------------------------------|
| 1. $9 \times 11 = \underline{\quad}$  | 11. $12 \times 7 = \underline{\quad}$ |
| 2. $7 \times 8 = \underline{\quad}$   | 12. $12 \times 8 = \underline{\quad}$ |
| 3. $12 \times 10 = \underline{\quad}$ | 13. $11 \times 6 = \underline{\quad}$ |
| 4. $6 \times 8 = \underline{\quad}$   | 14. $6 \times 9 = \underline{\quad}$  |
| 5. $8 \times 12 = \underline{\quad}$  | 15. $9 \times 12 = \underline{\quad}$ |
| 6. $10 \times 11 = \underline{\quad}$ | 16. $8 \times 11 = \underline{\quad}$ |
| 7. $9 \times 7 = \underline{\quad}$   | 17. $7 \times 4 = \underline{\quad}$  |
| 8. $11 \times 9 = \underline{\quad}$  | 18. $12 \times 6 = \underline{\quad}$ |
| 9. $7 \times 12 = \underline{\quad}$  | 19. $11 \times 8 = \underline{\quad}$ |
| 10. $8 \times 9 = \underline{\quad}$  | 20. $6 \times 7 = \underline{\quad}$  |

## Number Bonds to 100 Practise Questions:

- |                                   |                                    |
|-----------------------------------|------------------------------------|
| 1. $\underline{\quad} + 45 = 100$ | 6. $\underline{\quad} + 55 = 100$  |
| 2. $\underline{\quad} + 60 = 100$ | 7. $\underline{\quad} + 10 = 100$  |
| 3. $\underline{\quad} + 30 = 100$ | 8. $\underline{\quad} + 75 = 100$  |
| 4. $\underline{\quad} + 20 = 100$ | 9. $\underline{\quad} + 90 = 100$  |
| 5. $\underline{\quad} + 80 = 100$ | 10. $\underline{\quad} + 15 = 100$ |



Use the puzzle piece method to speed up your number bonds to 100.





# Zebra Badge



Division facts from the 2x, 3x, 4x, 5x, 10x and 11x.

## Practise Questions:

1.  $10 \div 2 = \underline{\quad}$

2.  $16 \div 2 = \underline{\quad}$

3.  $20 \div 2 = \underline{\quad}$

4.  $24 \div 2 = \underline{\quad}$

5.  $30 \div 2 = \underline{\quad}$

1.  $27 \div 3 = \underline{\quad}$

2.  $33 \div 3 = \underline{\quad}$

3.  $39 \div 3 = \underline{\quad}$

4.  $45 \div 3 = \underline{\quad}$

5.  $24 \div 3 = \underline{\quad}$

1.  $28 \div 4 = \underline{\quad}$

2.  $36 \div 4 = \underline{\quad}$

3.  $44 \div 4 = \underline{\quad}$

4.  $36 \div 4 = \underline{\quad}$

5.  $48 \div 4 = \underline{\quad}$

1.  $40 \div 5 = \underline{\quad}$

2.  $45 \div 5 = \underline{\quad}$

3.  $55 \div 5 = \underline{\quad}$

4.  $65 \div 5 = \underline{\quad}$

5.  $35 \div 5 = \underline{\quad}$

1.  $70 \div 10 = \underline{\quad}$

2.  $80 \div 10 = \underline{\quad}$

3.  $90 \div 10 = \underline{\quad}$

4.  $100 \div 10 = \underline{\quad}$

5.  $60 \div 10 = \underline{\quad}$

1.  $110 \div 11 = \underline{\quad}$

2.  $121 \div 11 = \underline{\quad}$

3.  $88 \div 11 = \underline{\quad}$

4.  $132 \div 11 = \underline{\quad}$

5.  $66 \div 11 = \underline{\quad}$



# Tiger Badge



Division facts from the 6x, 7x, 8x, 9x and 12x.

## Practise Questions:

1.  $36 \div 6 = \underline{\quad}$

2.  $48 \div 6 = \underline{\quad}$

3.  $54 \div 6 = \underline{\quad}$

4.  $72 \div 6 = \underline{\quad}$

5.  $30 \div 6 = \underline{\quad}$

1.  $64 \div 8 = \underline{\quad}$

2.  $72 \div 8 = \underline{\quad}$

3.  $88 \div 8 = \underline{\quad}$

4.  $96 \div 8 = \underline{\quad}$

5.  $32 \div 8 = \underline{\quad}$

1.  $49 \div 7 = \underline{\quad}$

2.  $63 \div 7 = \underline{\quad}$

3.  $77 \div 7 = \underline{\quad}$

4.  $28 \div 7 = \underline{\quad}$

5.  $84 \div 7 = \underline{\quad}$

1.  $81 \div 9 = \underline{\quad}$

2.  $90 \div 9 = \underline{\quad}$

3.  $108 \div 9 = \underline{\quad}$

4.  $54 \div 9 = \underline{\quad}$

5.  $27 \div 9 = \underline{\quad}$

1.  $144 \div 12 = \underline{\quad}$

2.  $36 \div 12 = \underline{\quad}$

3.  $72 \div 12 = \underline{\quad}$

4.  $120 \div 12 = \underline{\quad}$

5.  $60 \div 12 = \underline{\quad}$



Jamming is a useful mode in Times Tables Rockstars when you're practising specific tables.





# Leopard Badge



Multiplying and dividing whole and decimal numbers by 10, 50, 100 and 1000. Answering two questions from each area.

## Practise Questions:

- |  |  |  |
|--|--|--|
| 1. $13 \times 10 = \underline{\quad}$    | 1. $14 \times 50 = \underline{\quad}$  | 1. $56 \times 100 = \underline{\quad}$   |
| 2. $765 \times 10 = \underline{\quad}$   | 2. $46 \times 50 = \underline{\quad}$  | 2. $731 \times 100 = \underline{\quad}$  |
| 3. $4.3 \times 10 = \underline{\quad}$   | 3. $142 \times 50 = \underline{\quad}$ | 3. $4.5 \times 100 = \underline{\quad}$  |
| 4. $1.07 \times 10 = \underline{\quad}$  | 4. $280 \times 50 = \underline{\quad}$ | 4. $0.32 \times 100 = \underline{\quad}$ |
| 5. $82.04 \times 10 = \underline{\quad}$ | 5. $94 \times 50 = \underline{\quad}$  | 5. $4.06 \times 100 = \underline{\quad}$ |

- |   |                                       |                                       |
|---|---------------------------------------|---------------------------------------|
| 1. $23 \times 1000 = \underline{\quad}$   | 1. $234 \div 10 = \underline{\quad}$  | 1. $160 \div 50 = \underline{\quad}$  |
| 2. $5.6 \times 1000 = \underline{\quad}$  | 2. $40 \div 10 = \underline{\quad}$   | 2. $2400 \div 50 = \underline{\quad}$ |
| 3. $14.2 \times 1000 = \underline{\quad}$ | 3. $4800 \div 10 = \underline{\quad}$ | 3. $370 \div 50 = \underline{\quad}$  |
| 4. $0.5 \times 1000 = \underline{\quad}$  | 4. $7 \div 10 = \underline{\quad}$    | 4. $8700 \div 50 = \underline{\quad}$ |
| 5. $1.06 \times 1000 = \underline{\quad}$ | 5. $3.6 \div 10 = \underline{\quad}$  | 5. $4300 \div 50 = \underline{\quad}$ |

- |   |   |
|---|---|
| 1. $45 \div 100 = \underline{\quad}$    | 1. $4567 \div 1000 = \underline{\quad}$   |
| 2. $327 \div 100 = \underline{\quad}$   | 2. $345.6 \div 1000 = \underline{\quad}$  |
| 3. $8.3 \div 100 = \underline{\quad}$   | 3. $12,304 \div 1000 = \underline{\quad}$ |
| 4. $1345 \div 100 = \underline{\quad}$  | 4. $414.2 \div 1000 = \underline{\quad}$  |
| 5. $21.08 \div 100 = \underline{\quad}$ | 5. $19.81 \div 1000 = \underline{\quad}$  |

When multiplying by 50, try halving and then multiplying by 100. Similarly, when dividing by 50, try doubling and then multiplying by 100.





# Polka Dot Badge



Name and describe properties of 2D and 3D shape.











## Practise Questions:

Try to practise with someone else asking you the questions from a range of shapes.











- How many sides does a \_\_\_\_\_ have?
- What shape has \_\_\_\_\_ vertices?
- What is the name of \_\_\_\_\_ shape?
- Name the triangle which has sides of equal length.

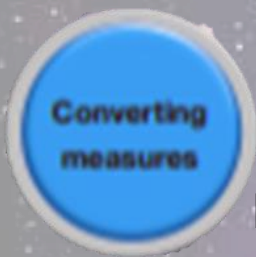
- Name the faces on a \_\_\_\_\_
- How many edges does a \_\_\_\_\_ have?
- Describe the properties of a \_\_\_\_\_.
- How many curved faces does a \_\_\_\_\_ have?

## 2D Shapes

Name		Sides	Vertices
triangle		3	3
circle		1	0
square		4	4
rectangle		4	4
pentagon		5	5
hexagon		6	6
oval		1	0
rhombus		4	4
trapezium		4	4
parallelogram		4	4

## 3D Shapes

Name	Surfaces		Edges		Vertices	Picture
	Flat	Curved	Flat	Curved		
sphere	0	1	0	0	0	
cube	6	0	12	0	8	
cuboid	6	0	12	0	8	
cone	1	1	0	1	0	
cylinder	2	1	0	2	0	
square-based pyramid	5	0	8	0	5	
tetrahedron	4	0	6	0	4	
triangular prism	5	0	9	0	6	
pentagonal prism	7	0	15	0	10	
hexagonal prism	8	0	18	0	12	



# Blue Badge



Make a range of conversions for length, capacity and mass - including decimal conversions.

## Practise Questions:

### Length Conversions:

1. Convert 5 km to cm.
2. Convert 250 cm to mm.
3. Convert 35 mm to cm.
4. Convert 1.8 cm to mm.
5. Convert 800 cm to mm.
6. Convert 2.3 km to m.
7. Convert 1500 mm to km.
8. Convert 45 cm to mm.
9. Convert 0.75 cm to mm.
10. Convert 4800 m to km.

### Capacity Conversions:

11. Convert 3 l to ml.
12. Convert 500 ml to l.
13. Convert 1.2 l to ml.
14. Convert 750 ml to l.
15. Convert 2.5 l to ml.
16. Convert 4.6 l to ml.
17. Convert 800 ml to l.
18. Convert 0.6 l to ml.
19. Convert 1.75 l to ml.
20. Convert 650 ml to l.

Converting Mass		Converting Capacity	
1 tonne = 1000kg 1000g = 1kg $\frac{1}{10}$ kg = 0.1kg = 100g	$\frac{1}{4}$ kg = 0.25kg = 250g $\frac{1}{2}$ kg = 0.5kg = 500g $\frac{3}{4}$ kg = 0.75 = 750g	1000ml = 1l $\frac{1}{10}$ l = 0.1l = 100ml $\frac{1}{4}$ l = 0.25l = 250ml	$\frac{1}{2}$ l = 0.5l = 500ml $\frac{3}{4}$ l = 0.75l = 750ml $\frac{1}{100}$ l = 0.01l = 10ml
Converting Length			
1000m = 1km 100cm = 1m 10mm = 1cm	$\frac{1}{2}$ m = 0.5m = 50cm $\frac{1}{4}$ m = 0.25m = 25cm	$\frac{3}{4}$ m = 0.75m = 75cm $\frac{1}{10}$ m = 0.1m = 10cm	

### Mass Conversions:

21. Convert 2 kg to g.
22. Convert 1500 g to kg.
23. Convert 0.6 kg to g.
24. Convert 4500 g to kg.
25. Convert 3.25 kg to g.
26. Convert 2700 g to kg.
27. Convert 8000 g to kg.
28. Convert 0.9 kg to g.
29. Convert 2.3 kg to g.
30. Convert 5000 g to kg.



# Rainbow Badge

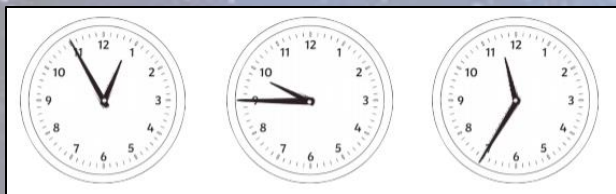


Days in a week, months in a year, seconds, hours minutes. Tell the time to 5 minutes on a 12hr and 24hr clock.

## Practise Questions:

1. How many days are there in a week?
2. What day comes after Wednesday?
3. What day is before Saturday?
4. How many months in a year?
5. How many months have 31 days?
6. Which month has less than 30 days?
7. How many days are in a leap year?
1. 60 minutes = \_ hours
2. 180 minutes = \_ hours
3. 2 hours = \_ minutes
4. 180 seconds = \_ minutes
5. 4 minutes = \_ seconds
6. 24 hours = \_ days
7. 72 hours = \_ days
8. 4 weeks = \_ days
9. 3.5 hours = \_ minutes
10. 12 minutes = \_ seconds

## What is the time on these clocks?







# Half Badge



Fractions and percentages of numbers up to 100 and multiples of 10 and 100.

## Practise Questions:

1.  $\frac{1}{3}$  of 36

2.  $\frac{1}{4}$  of 88

3.  $\frac{1}{2}$  of 32

4.  $\frac{1}{5}$  of 45

5.  $\frac{1}{4}$  of 52

6.  $\frac{1}{3}$  of 78

7.  $\frac{1}{5}$  of 85

8.  $\frac{1}{2}$  of 92

1.  $\frac{1}{10}$  of 80

2.  $\frac{1}{5}$  of 50

3.  $\frac{1}{4}$  of 200

4.  $\frac{1}{2}$  of 700

5.  $\frac{1}{10}$  of 300

6.  $\frac{1}{10}$  of 450

7.  $\frac{1}{4}$  of 820

8.  $\frac{1}{10}$  of 620

1. What is 10% of 52?

2. Find 20% of 35.

3. Calculate 50% of 82.

4. What is 25% of 48?

5. Find 40% of 75.

6. Calculate 10% of 39.

7. What is 20% of 75?

8. Find 25% of 64.

1. What is 10% of 20?

2. Find 20% of 100.

3. Calculate 50% of 50.

4. What is 25% of 200?

5. Find 40% of 90.

6. Calculate 10% of 80.

7. What is 20% of 30?

8. Find 25% of 500.

Practise division to support this skill and use efficient methods like finding 10% and multiplying to find the answer.



# Quarter Badge



Equivalent fraction, percentages and decimals.

## Practise Questions:

1. \_\_\_\_ = 37% = 0.37

2.  $\frac{3}{4}$  = 75% = 0.\_\_\_\_

3.  $\frac{1}{10}$  = \_\_\_\_% = 0.1

4.  $\frac{3}{100}$  = \_\_\_\_% = 0.03

5.  $\frac{7}{10}$  = \_\_\_\_% = 0.\_\_\_\_

6.  $\frac{3}{5}$  = 60% = 0.\_\_\_\_

7.  $\frac{1}{3}$  = 33.3% = 0.33

8.  $\frac{1}{5}$  = 20% = 0.\_\_\_\_

9.  $\frac{1}{4}$  = 25% = 0.25

10.  $\frac{2}{5}$  = \_\_\_\_% = 0.\_\_\_\_

11.  $\frac{41}{100}$  = \_\_\_\_% = 0.\_\_\_\_

12.  $\frac{2}{4}$  = \_\_\_\_% = 0.\_\_\_\_

13.  $\frac{2}{3}$  = \_\_\_\_% = 0.\_\_\_\_

14. \_\_\_\_ = 45% = 0.\_\_\_\_

15.  $\frac{60}{100}$  = \_\_\_\_% = 0.\_\_\_\_

16. \_\_\_\_ = \_\_\_\_% = 0.8

17. \_\_\_\_ = 35% = 0.\_\_\_\_

18. \_\_\_\_ = \_\_\_\_% = 0.85

Decimals, Percentages and Fractions			
	Fraction	Percentage	Decimal
	1 whole	100%	1
	$\frac{1}{2}$	50%	0.5
	$\frac{1}{3}$	33.3%	0.33
	$\frac{1}{4}$	25%	0.25
	$\frac{1}{5}$	20%	0.2
	$\frac{1}{6}$	16.7%	0.167
	$\frac{1}{8}$	12.5%	0.125
	$\frac{1}{10}$	10%	0.1
	$\frac{1}{12}$	8.3%	0.083

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