

Year 8 Procedural Revision **ANSWERS**

- Write the following numbers in words
 - 264 **Two hundred and sixty four**
 - 13804 **Thirteen thousand, eight hundred and four**
 - 4538080 **Four million, five hundred and thirty eight thousand and eighty.**
- Write the following words in numbers
 - One thousand, six hundred and four **1604**
 - Two thousand, one hundred and five **2105**
 - Six hundred thousand, four hundred and thirty five. **600435**
- Fill in the missing number
 - $3543 + 182 = \underline{\mathbf{3725}}$
 - $4836 - 1098 = \underline{\mathbf{3738}}$
 - $3862 - \underline{\mathbf{1153}} = 2709$
 - $1568 + \underline{\mathbf{1311}} = 2879$
 - $9 \times \underline{\mathbf{3}} = 27$
 - $72 \div \underline{\mathbf{8}} = 9$
 - $\underline{\mathbf{5}} \times 6 = 30$
 - $\underline{\mathbf{28}} \div 7 = 4$
- Find the value of
 - 5^2 **25**
 - 8^2 **64**
 - 12^2 **144**
 - $\sqrt{36}$ **6**
 - $\sqrt{81}$ **9**
 - $\sqrt{49}$ **7**
 - 4^3 **64**
 - 2^3 **8**
 - 10^3 **1000**
 - $\sqrt[3]{27}$ **3**
 - $\sqrt[3]{8}$ **2**
 - 3^5 **243**
- Given that $36 \times 42 = 1512$, write down the value of
 - $3 \cdot 6 \times 42$ **151.2**
 - $36 \times 4 \cdot 2$ **151.2**
 - $3 \cdot 6 \times 4 \cdot 2$ **15.12**
 - 36×420 **15120**
 - 3600×42 **151200**
 - $3 \cdot 6 \times 420$ **1512**
- Cancel the following to their simplest form
 - $\frac{5}{10}$ $\frac{1}{2}$
 - $\frac{9}{12}$ $\frac{3}{4}$
 - $\frac{8}{10}$ $\frac{4}{5}$
 - $\frac{6}{15}$ $\frac{2}{5}$
- Write the following improper fractions as mixed number fractions
 - $\frac{5}{4}$ **$1\frac{1}{4}$**
 - $\frac{8}{3}$ **$2\frac{2}{3}$**
 - $\frac{26}{5}$ **$5\frac{1}{5}$**
 - $\frac{45}{7}$ **$6\frac{3}{7}$**
- Write the following mixed number fractions as improper fractions
 - $3\frac{1}{4}$ **$\frac{13}{4}$**
 - $5\frac{2}{5}$ **$\frac{27}{5}$**
 - $2\frac{2}{7}$ **$\frac{16}{7}$**
 - $7\frac{7}{9}$ **$\frac{70}{9}$**

9. Fill in the table below

Fraction	Percentage	Decimal
$\frac{1}{2}$	50%	0.5
$\frac{1}{4}$	25%	0.25
$\frac{1}{2}$	10%	0.1
$\frac{1}{10}$	20%	0.20
$\frac{2}{5}$	40%	0.40
$\frac{3}{10}$	30%	0.3
$\frac{3}{4}$	75%	0.75

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10. Place the following fractions in order of size, smallest first

$\frac{1}{2}$ $\frac{3}{4}$ $\frac{1}{10}$ $\frac{1}{5}$ $\frac{3}{10}$ $\frac{1}{10}$ $\frac{1}{5}$ $\frac{3}{10}$ $\frac{1}{2}$ $\frac{3}{4}$

11. Find a) 10% of 320 **32** b) 20% of 320 **64** c) 30% of 320 = 96
d) 1% of 560kg **5.6kg** e) 6% of 560kg **33.6kg**

12. A pair of trousers costing £35 are reduced in a sale by 30%. How much is the sale price of the trousers? **30% = £10.50 Sale price £24.50**

13. Find the value of a) $\frac{3}{5}$ of 20kg **12kg** b) $\frac{2}{7}$ of 35g **10g**
c) $\frac{7}{10}$ of £2 **£1.40** d) $\frac{3}{4}$ of 124m **93m**
e) $\frac{3}{4} + \frac{1}{5}$ **$\frac{19}{20}$** f) $\frac{4}{7} - \frac{1}{3}$ **$\frac{5}{21}$**

14. (a) Write 3 as a percentage of 10 **30%**
(b) Write 12 as a percentage of 25 **48%**

15. (a) Share 160 sweets in the ratio of 1 : 9 **16, 144**
(b) Share £150 in the ratio of 2 : 3 : 5 **30, 45, 75**
(c) Tim shared 50 pens between himself and his friend Tom in the ratio of 4: 1.
How many pens will each boy receive? **Tim 40, Tom 10**
(d) If 6 apples cost £1.80, how much would 15 apples cost? **£4.50**

16. a) $0.33 + 8.2 =$ **8.53** b) $78.335 - 38.2 =$ **40.135**
c) $35.938 + 7.82 =$ **43.758** d) $0.3 \times 2 =$ **0.6**
e) $8 \times 0.02 =$ **0.16** f) $64 \div 0.8 =$ **80**
g) $39 \div 0.3 =$ **130** h) $24 \div 0.03 =$ **800**
i) $35 \times 18 =$ **630** j) $374 \times 82 =$ **30668**
k) $1250 \div 25 =$ **50**

17. Estimate the total of the following lengths 1.95m, 3.75m, 1.2m, 7.05m.
 $2 + 4 + 1 + 7 = 14$ m

18. Tom bought 9 packets of sweets for his friends. Each packet of sweets cost £1.95.
Estimate how much Tom spent on the sweets.

19. Round the following values correct to **1 decimal place**.
a) 83.23 **83.2** b) 3.78 **3.8** c) 0.372 **0.4** d) 0.999 **1.0**

Round the following values correct to **2 decimal places**.

e) 12.736 **12.74** f) 43.781 **43.78** g) 80.372 **80.37** h) 0.999 **1.00**

Round the following values correct to **3 decimal places**.

i) 12.4764 **12.476** j) 83.7850 **83.785** k) 290.3728 **290.373** l) 0.9999 **1.000**

Round the following values correct to **1 significant figure**.

m) 465 **500** n) 5368 **5000** o) 8.87 **9** p) 0.99 **1**

Round the following values correct to **2 significant figures**.

q) 2871 **2900** r) 8310 **8300** s) 90.3728 **90** t) 0.9999 **1.0**

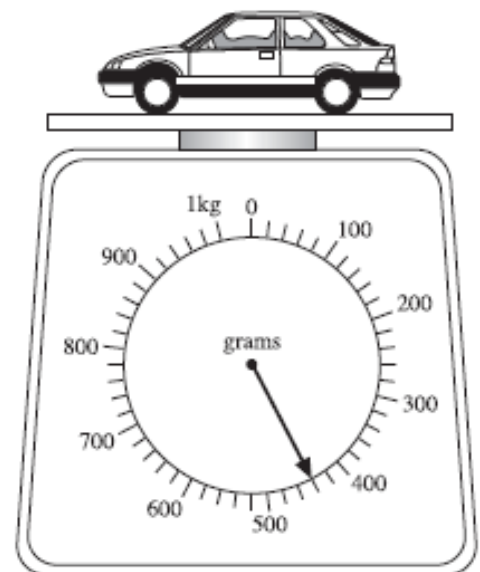
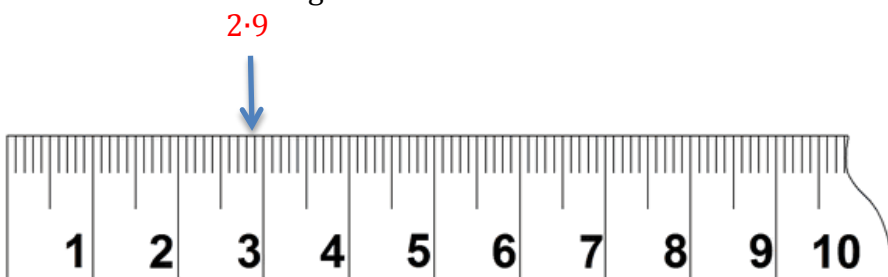
20. Round the following to the nearest **penny**

a) £38.876 **£38.88** b) £198.820 **£198.82** c) £99.999 **£100**

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21. Round the following to the nearest *tenth* of a second
 a) 3.928 seconds **3.9s** b) 7.952 seconds **8.0s** c) 87.975 seconds **88.0s**
22. Round the following to the nearest *hundredth* of a second
 a) 3.928 seconds **3.93s** b) 7.952 seconds **7.95s** c) 87.975 seconds **87.98s**
23. a) Write down all of the multiples of 4 between 20 and 40 **20,24,28,32,36,40**
 b) Write down all of the multiples of 9 between 60 and 120 **63,72,81,108,117**
 c) Write down all of the multiples of 12 between 50 and 150 **60, 72,84,96, 108, 120, 132, 144**
24. a) Write down all of the factors of 20 **1, 2, 4, 5, 10, 20**
 b) Write down all of the factors of 36 **1, 2, 3, 4, 6, 9, 12, 18, 36**
 c) Write down all of the factors of 56 **1, 2, 4, 7, 8, 14, 28, 56**
25. a) Find the value of $(3 + 3) \times 5$ **30**
 b) Find the value of $5 - 4 + (6 \times 5)$ **31**
 c) Find the value of $(3 \times 6) + 7 \times 4$ **46**
26. Andy counted the number of matches in nine different matchboxes. The results were as follows.
 48 50 47 45 49 47 46 45 51
 i) Find the median number of matches in the boxes. **47**
 ii) Find the range of the number of matches in the boxes. **6**
27. Mr. and Mrs. Evans estimate that during any year their antique furniture *increases* in value by 24% of its value at the beginning of that year.
 Initially the value of their furniture was £5000.
 Find the value of their furniture at the end of 3 years. Give your answer to the nearest £100.
£9500
28. Find the compound interest, to the nearest penny, when £6000 is invested for 3 years at 4% per annum.
£749.18

29. Read the value on each of the following scales.





The toy car weighs **440g** g.

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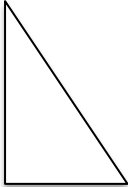
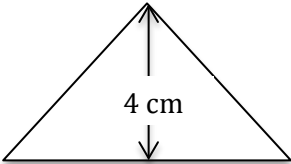
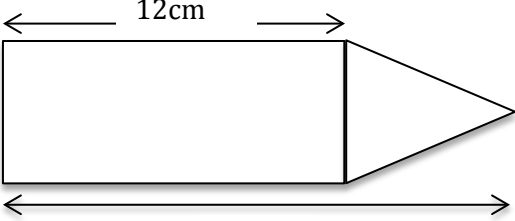
30. Convert the following measurements into the units in brackets.

- | | | | |
|-------------------------------|---------------------------------|---------------------------------|------------------------------|
| a) 37cm (mm)
370mm | b) 4976m (km)
4.976km | c) 398g (mg)
398000mg | d) 29mm (cm)
2.9cm |
| e) 4.5L (ml)
4500ml | f) 8kg (g)
8000g | g) 1872m (km)
1.872km | h) 7.9m (cm)
790cm |

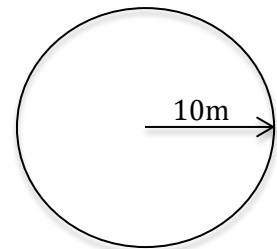
31. Find the perimeter and area of each of the following shapes clearly stating the units of your answers.

- a)  **P=18mm**
A=18.35mm²
- b)  **P=20.2cm**
A=21.3cm²

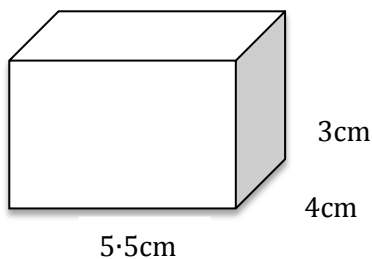
32. Find the area of each of the following shapes clearly stating the units of your answers.

- a)  **A=10cm²**
- b)  **A = 13.6cm²**
- c)  **A = 60 + 15 = 75cm²**

33. Find the *circumference* and *area* of the circle using $\pi = 3.14$. Clearly state the units of your answers.



34. Find the volume of the cuboid



V=66cm³

C = 62.8cm
A = 314.2cm²

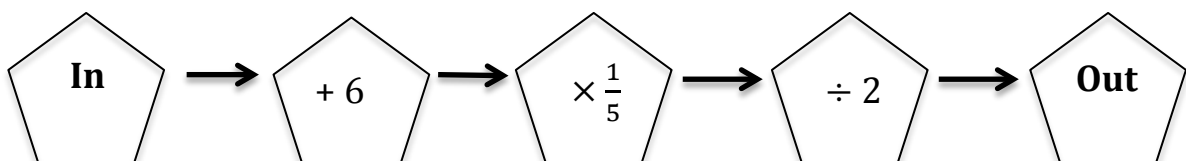
35. Eric travelled 90 miles in 2 hours. Calculate the average speed that Eric travelled at.
45mph

36. Find the mean, median, mode and range of

12, 15, 17, 15, 16, 15, 15.

Mean = 15,
Median = 15,
Mode = 15,
Range = 5

37.



Find the output when the input is 14.

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