F = fraction, D = decimal, P = percentage and R = ratio

Ordered strictly alphabetically

correctDP

6. write decimal correct to 3 d.p.

5. write decimal correct to 2 d.p.

4. write £ correct to the nearest penny

2. write a decimal correct to 1 d.p.

1. **scaffold to** write a decimal correct to 1 d.p. **scaffold is** given LB (lower bound) and clue for which digit is the decider

decimalFraction

10. **scaffold to** shade in e.g. $1 + \dfrac{2}{10} + \dfrac{3}{100}$ and write as decimal and percentage or similar to convert decimal to percentage or v.v. **scaffold is** diagram with key for 1, 0.1 and 0.01

9. write e.g. 0.9 {1 d.p.} as percentage or percentage e.g. 210 % as decimal {1 d.p.}

8. **scaffold to** write e.g. 0.9 {1 d.p.} as percentage or percentage e.g. 210 % as decimal {1 d.p.} **scaffold is** proportional triangle

7. write 0.03 as a % or 3 % as a decimal

5. write decimal {2 d.p.} as percentage OR suitable % as a decimal {gives decimal to 2 d.p.}

4. **scaffold to** write e.g. 0.23 {2 d.p.} as percentage or a percentage as decimal {2 d.p.} **scaffold is** proportional triangle

3. **scaffold to** write e.g. 0.23 or 0.2 or 0.03 as a percentage or fraction {simplify not needed} **scaffold is** diagram with key for 1, 0.1 and 0.01

2. write $\dfrac{F}{100}$ as a percentage or v.v. {simplify not needed}

1. write down the (i) fraction (ii) percentage shaded of a 100 square {simplify not needed}

decimalXdiv

16. work out e.g. $15480 \div 4.3$ using $3.6 \times 43 = 154.8$

15. work out e.g. $2.8 \div 4$ or $2.8 \div 40$ or $0.28 \div 4$ or $0.028 \div 4$

14. work out e.g. $2.8 \div 0.5$

13. work out e.g. $28 \div 0.4$ or $28 \div 0.04$ or $280 \div 0.4$ or $2800 \div 0.4$

12. work out e.g. $2.8 \div 0.4$

11. work out e.g. 36×0.43 using $3.6 \times 43 = 154.8$

10. work out e.g. 0.3×0.4 or 0.3×0.04

 9. work out e.g. 3×0.04

 8. work out e.g. 3×0.4

 7. **scaffold to** work out 7×0.6 or 0.7×6 **scaffold is** told $7 \times 6 = 42$

estimateSIGfig

 9. write $0 \leq n < 1$ to 2 or 3 significant figures

 8. write n > 1 to 2 or 3 significant figures

 7. write $0 \leq n < 1$ to 1 significant figure

 6. write $10 < n < 20$ {i.e. teen} correct to 1 significant figure

 5. estimate e.g. 25.2 x 62 {TO/O $\times$ HTO/TO}

 4. write $1 \leq n < 10$ and $n > 20$ correct to 1 significant figure

 3. **scaffold to** estimate Ones.t $\times$ Ones.t **scaffold is** use of $\approx$ and fill in gaps

 2. write e.g. 5.63 correct to 1 s.f.

 1. **scaffold to** write e.g. 5.63 correct to 1 s.f. **scaffold is** given LB (lower bound) and clue re which digit is decider

fractionADDsub

13. mixed fraction $\pm$ mixed fraction {harder e.g. $3 - \dfrac{7}{12}$ or $3 + \dfrac{7}{6}$}

11. mixed fraction $\pm$ mixed fraction {easier}

10. work out $\dfrac{n_1}{d_1} \pm \dfrac{n_2}{d_2}$ {simplify IS required}

9. work out $\dfrac{n_1}{d_1} \pm \dfrac{n_2}{d_2}$ {simplify NOT required}

8. work out $\dfrac{n_1}{d} \pm \dfrac{n_2}{kd}$ {simplify IS required}

7. **scaffold to** work out $\dfrac{n_1}{d} \pm \dfrac{n_2}{kd}$ in simplest form **scaffold is** fraction line with suitable labels

6. **scaffold to** work out $\dfrac{n_1}{d_1} \pm \dfrac{n_2}{d_2}$ {simplify NOT required} **scaffold is** fraction line

5. work out $\dfrac{n_1}{d} \pm \dfrac{n_2}{kd}$ {simplify NOT required}

4. **scaffold to** work out $\dfrac{n_1}{d} + \dfrac{n_2}{kd}$ {simplify NOT required} **scaffold is** fraction line

3. work out $\dfrac{n_1}{d} \pm \dfrac{n_2}{d}$ {simplify NOT required}

1. **scaffold to** work out $\dfrac{n_1}{d} \pm \dfrac{n_2}{d}$ **scaffold is** incompletely labelled fraction line

fractionINTRO

12. write probability shown on probability line as a fraction

11. complete improper and proper fractions on number line

10. complete e.g. $\dfrac{3}{4} = \dfrac{}{8}$ or $\dfrac{}{12}$ or $\dfrac{}{16}$ or $\dfrac{}{20}$ or $\dfrac{}{40}$

9. **scaffold to** complete e.g. $\dfrac{3}{4} = \dfrac{}{8}$ or $\dfrac{}{12}$ or $\dfrac{}{16}$ **scaffold is** square dotty paper

7. **scaffold to** find equivalent fractions and state which fraction is in simplest form **scaffold is** shade in $\dfrac{n}{d}$ of e.g. $3 \times d$ rectangle to find $\dfrac{?}{3d}$

6. **scaffold to** find equivalent fractions **scaffold is** number line labelled in e.g. $\dfrac{1}{3}$s and $\dfrac{1}{12}$s

5. know: 1/4 = 25% and 1/2 = 50% = 2/4 and 3/4 = 75%

4. complete labels on number line e.g. $\dfrac{0}{5}$ to $\dfrac{5}{5}$ and $\dfrac{0}{6}$ to $\dfrac{6}{6}$ and say which is largest $\dfrac{1}{5}$ or $\dfrac{1}{6}$

3. what fraction of picture is shaded {simplify NOT required}

2. shade in $\dfrac{n}{d}$ of a rectangle with d squares {n > 1}

1. shade in $\dfrac{1}{d}$ of a rectangle with d squares

fractionOF

17. different ways to write half of e.g. $\dfrac{TO}{2}$ or $0.5 \times TO$ or $TO \times 0.5$ or $\dfrac{1}{2}$ of TO {T even}

16. work out $\dfrac{n}{d}$ of ... {where $3 \le d \le 10$ and $n \ge 2$ e.g. $\dfrac{2}{5}$ of 35}

14. work out half of TO {where T is odd and O is even e.g. 76}

13. **scaffold to** work out half of 30, 50, 70 or 90 **scaffold is** half of 10 + half of ...

12. work out half of ... {answer is 6 to 9}

11. work out $\dfrac{1}{d}$ of ... {$3 \le d \le 10$ e.g. $\dfrac{1}{5}$ of 35}

10. **scaffold to** work out $\dfrac{1}{d}$ of ... {$3 \le d \le 6$} **scaffold is** sharing into boxes

8. work out half of TO {both digits are even e.g. 46}

7. **scaffold to** work out half of TO {both digits are even e.g. 46} **scaffold is** partitioning

6. work out half of T0 {20, 40, 60, 80, 100}

5. **scaffold to** work out half of {20, 40, 60, 80, 100} **scaffold is** hint half of {2, 4, 6, 8, 10}

4. work out half of ... {answer is 2 to 5}

3. **scaffold to** work out half of ... {answer is 1 to 5} **scaffold is** e.g.blank butterfly

2. **scaffold to** work out half of ... {answer is 6 to 9} **scaffold is** example picture

1. **scaffold to** work out half of ... {answer 1 to 5} **scaffold is** e.g. spots on butterfly

fractionXdiv

10. mixed fraction $\times$ mixed fraction

8. fraction $\div$ fraction {simplify IS required}

7. fraction $\times$ fraction {simplify IS required}

6. fraction $\div$ fraction {simplify NOT required}

2. fraction $\times$ fraction {simplify NOT required}

1. **scaffold to** fraction $\times$ fraction **scaffold is** picture of cutting out fraction of fraction

moreIndex

14. given e.g. $2^9 \times 2^x = 2^4$ or $2^4 \div 2^x = 2^9$ write down the value of x

13. evaluate $n^{\pm\frac{2}{3}}$ or $n^{\pm\frac{3}{2}}$ or $\left(\dfrac{n}{d}\right)^{\pm\frac{2}{3}}$ or $\left(\dfrac{n}{d}\right)^{\pm\frac{3}{2}}$

12. evaluate $n^{\pm\frac{1}{2}}$ or $n^{\pm\frac{1}{3}}$ or $\left(\dfrac{n}{d}\right)^{\pm\frac{1}{2}}$ or $\left(\dfrac{n}{d}\right)^{\pm\frac{1}{3}}$

11. given e.g. $2^4 \times 2^x = 2^9$ or $2^9 \div 2^x = 2^4$ write down the value of x

10. given e.g. $2^x = \dfrac{1}{16}$ write down the value of x

9. work out the value of e.g. $\left(\dfrac{4}{9}\right)^{-2}$

8. write down the value of e.g. $\left(\dfrac{16}{9}\right)^{\frac{1}{2}}$ {numerator and denominator are square numbers}

7. write down the value of e.g. $49^{\frac{1}{2}}$ {$9^{\frac{1}{2}}$, $16^{\frac{1}{2}}$, $\ldots 144^{\frac{1}{2}}$}

6. write down the value of e.g. 7^{-2} or 3^{-3} {only 1^{-2} to 10^{-2} and 1^{-3} to 5^{-3}}

5. write down the value of e.g. 6^0 and $\left(\dfrac{16}{9}\right)^{0}$

4. work out the value of e.g. $\left(\dfrac{4}{9}\right)^{-1}$ or the reciprocal of $\dfrac{4}{9}$

3. write down the value of e.g. $100^{\frac{1}{2}}$ {only 9, 16, 25 or 100}

2. work out the value of e.g. 6^{-1} or the reciprocal of 6

1. work out value of e.g. 6^1 and $\left(\dfrac{16}{9}\right)^{1}$

numberDIV10etc

14. work out e.g. HT0 ÷ 100 or 1000 {delete trailing 0s}

12. work out e.g. TU.th ÷ 10 or 100 or 1000 {add leading 0s}

10. work out {as complex as}TTh Th HTO ÷ 100 or 1000 {NO decimal point, no need to add leading or remove trailing 0s}

9. work out {as complex as}TTh Th HTO.th ÷ 100 or 1000 {no need to add leading or remove trailing 0s}

8. work out {as complex as} Th HTO ÷ 10 {NO decimal point, no need to add leading or remove trailing 0s}

6. work out {as complex as} HTO.th ÷ 10 {no need to add leading or remove trailling 0s}

5. **scaffold to** work out {as complex as} HTO.th ÷ 10 **scaffold is** place value grid {no need to add leading or remove training 0s}

4. work out T0 or HT0 or Th HT0 ÷ 10

3. **scaffold to** work out HT0 or Th HTO ÷ 10 **scaffold is** place value grid

2. work out T0 ÷ 10

1. **scaffold to** work out T0 ÷ 10 **scaffold is** fingers to count in 10s

orderFDP

9. which is larger e.g. $\dfrac{4}{5}$ or 79% ?{NO simplify required to convert the fraction to a percentage}

7. order list of decimals {mix of 1.d.p. 2 d.p. and 3 d.p.}

6. order list of decimals {mix of 1.d.p. and 2 d.p.}

4. write the value of e.g. 2 or 3 in 4.23

3. **scaffold to** write the value of e.g. 2 or 3 in 4.23 **scaffold is** place value grid

2. order list of decimals e.g. 0.002, 0.02, 0.2 {only one digit ≠ 0}

1. order list of decimals e.g. 0.1, 0.3, 0.5 {i.e. all with 1 d.p.} or e.g 0.12, 0.23, 0.42 {i.e. all with 2 d.p.} etc

percentOF

8. work out 1% or 2% or 2.5% or 40% or 80% of e.g. £250

7. work out 15% or 30% of e.g. £17.40

6. work out 5% or 20% of e.g. £17.40

5. work out 75% of e.g. £17.40

4. work out 10% of e.g. £17.40

3. work out 25% of e.g. £17.40

2. work out 50% of e.g. £1436 {some digits are odd}

1. work out 50% of e.g. £426 {every digit is even}

ratio

10. convert one ratio share to a percentage

9. given As SHARE and ratio of A : B what is Bs share

8. e.g. given TOTAL is split in ratio 2 : 3 : 4 how much each or how much for 1 person

7. e.g. given TOTAL is split in ratio 2 : 3 how much MORE or LESS 1 person gets than another

6. given fraction write a ratio A : B

5. share TOTAL in ratio e.g. 2 : 3

4. given ratio A : B find fraction of (A) or given ratio A : B : C find fraction of e.g. A

2. **scaffold to** share TOTAL in ratio e.g. 2 : 3 **scaffold is** empty labelled boxes

1. **scaffold to** share TOTAL in ratio e.g. 2 : 3 **scaffold is** example and empty labelled boxes

simplestForm

5. write fraction in simplest form {need to $\div$ 3 once and/or $\div$ 2 or 5 more than once}

4. write fraction in simplest form {need to $\div$ 5 or 9 once or $\div$ 2 more than once}

3. write fraction in simplest form {only $\div$ 2 or $\div$ 10 once}

2. **scaffold to** write fraction in simplest form **scaffold is** given incomplete prime factor tree and hint to write numerator and denominator as product of prime factors

1. **scaffold to** write fraction in simplest form **scaffold is** given numerator and denominator as product of prime factors

standardForm

12. work out e.g $(2.8 \times 10^4) \div (1.4 \times 10^{-1})$ giving answer in standard form

10. work out e.g $3 \times 10^4 \times 6 \times 10^3$ giving answer in standard form

9. write e.g. 180×10^6 in standard form

8. write a mix of ordinary and standard form numbers in order

7. write e.g. 0.000 06 in standard form

6. write e.g. 43 000 in standard form

4. write e.g. 5.2×10^{-4} as an ordinary number

2. write e.g. 3.1×10^4 as an ordinary number

1. **scaffold to** write e.g. 3.1×10^4 as an ordinary number **scaffold is** step by step examples