

4 operations

- + givenADDSign p8
- givenSUBSign p9
- \times givenXSign p10, numberX10etc p11, beginXfacts and improveXfacts p12
- \div givenDIVSign p13, numberDIV10etc see FDPR, beginDIVfacts and improveDIVfacts p14

10bond

1. **scaffold to** complete $\text{Ones} + \dots = 10$ **scaffold is** fingers on pair of hands
2. complete $\text{Ones} + \dots = 10$
3. **scaffold to** solve $\text{Ones} + \star = 10$ **scaffold is** fingers or boxes
4. **scaffold to** solve $\star + \text{Ones} = 10$ **scaffold is** fingers or boxes
5. solve $\star + \text{Ones} = 10$ or $\text{Ones} + \star = 10$
6. **scaffold to** complete $10 - \text{Ones} = \dots$ **scaffold is** hands or boxes
7. complete $10 - \text{Ones} = \dots$
8. **scaffold to** calculate $\star + \text{Ones} = T0$ **scaffold is** use $\star + \text{Ones} = 10$

base10add

1. complete the missing numbers e.g. 5 6 7 ..., ..., ... {never past 10}
2. complete the missing numbers e.g. 6 7 8 ..., ..., ... {always past 10}
3. **scaffold to** complete the multiples of 10 **scaffold is** all other squares numbered
4. **scaffold to** count e.g. 64 shaded squares in a 100 square **scaffold is** 1 to 10 and 20 written in appropriate squares
5. count e.g. 64 shaded squares in a 100 square {shaded vertically or horizontally}
6. complete the missing numbers e.g. 26 27 28, ..., ... {past the next multiple of 10}
7. **scaffold to** complete e.g. 6 16 26 36 ..., ..., ... **scaffold is** incomplete 100 square and pictures
8. **scaffold to** complete e.g. 16 26 36 ..., ..., ... **scaffold is** pictures
9. complete e.g. 16 26 36 ..., ..., ...
10. complete e.g. 36 46 56 66 ..., ..., ... {never past 100}
11. count on in 10s from any 3 digit number (no 0s) (not crossing 100?s boundary)
12. count on in 100s from any 3 digit number (no 0s) (not crossing 1000s boundary)
13. count on in 10s or 100s from HTU must include 0 digit (not crossing 1000s boundary)
14. count on in 10s from any 2 digit number (no 0s) (always crossing 100s boundary)
15. count on in 10s from any 3 digit number (no 0s) (always crossing next 100?s boundary)

base10skills

1. scaffold for layer 2
2. **scaffold to** work out 70×6 or 7×60 **scaffold is** told $7 \times 6 = 42$
3. scaffold for layer 4
4. work out e.g. 2×80 or v.v. {NOT e.g. 2×50 because 2×5 ends in 0}
5. scaffold for layer 6
6. work out e.g. $2 \times \{800 \text{ or } 8000\}$ or v.v. {NOT e.g. 2×500 because 2×5 ends in 0}
7. scaffold for layer 8
8. work out e.g. $\{20 \text{ or } 200\} \times \{80 \text{ or } 800\}$ {NOT e.g. 20×500 because 2×5 ends in 0}
9. scaffold for layer 10
10. work out e.g. $\{2 \text{ or } 20 \text{ or } 200\} \times \{50 \text{ or } 500\}$ or v.v. {harder because 2×5 ends in 0}

BⁱDMAS

1. Name says the value of e.g. 3^2 is 6 {or 9} Is Name correct? **explain**
2. Name says e.g. $3 \times 3 \times 3 \times 3$ is 4^3 Is Name correct? **explain**
3. **scaffold to** layer 4
4. work out calculations of the form $a \div (b \pm c)$ or $a - (b \pm c)$
5. **scaffold to** layer 6
6. work out calculations of the form $a \pm b \times c$ or $a \pm b \div c$
7. find square number in a list LESLEY SPLIT OLD type of num (3)
8. find cube number in a list LESLEY SPLIT OLD type of num (3)
9. write down e.g. $5x^2$ where $x=3$ or 4th term of a sequence where nth term is $3n^2$
10. write down e.g. $(-3)^2$ or 3 or 4

correctTOnearest

1. **scaffold to** count on from e.g. 3 and stop at 10 **scaffold is** Name models counting on from e.g. 26 to 30 in part of 100 square
2. **scaffold to** complete e.g. $20 + \dots = 26$ and $26 + \dots = 30$ **scaffold is** incomplete 100 square or number line
3. **scaffold to** complete e.g. 26 correct to the nearest 10 = ... **scaffold is** incomplete 100 square or number line and $20 + \dots = 26$ and $26 + \dots = 30$
4. **scaffold to** complete e.g. 26 correct to the nearest 10 = ... **scaffold is** write the two multiples of 10 closest to 26 on incomplete number line
5. Given part of number line with e.g. labelled 40 to 60 circle the 5 forty something and the 5 fifty something numbers which are 50 correct to the nearest 10
6. Write e.g. 24 or 26 etc correct to the nearest 10
7. Write e.g. 25 correct to the nearest 10
8. Write e.g. TO (O not 5) correct to the nearest 10 = ? {is a more mathematical way of writing round TO to the nearest 10} PRIMARY SCHOOL ONLY
9. Write e.g. TO (O = 5) correct to the nearest 10 = ? {is a more mathematical way of writing round TO to the nearest 10} PRIMARY SCHOOL ONLY
10. scaffold to layer 10 write the chop and fill below and the chop and up and fill above
11. write e.g. 4937 or 4973 correct to the nearest 10
12. **scaffold to** write decimal correct to nearest integer/whole number
13. write e.g. 1823.54 or 1823.45 correct to the nearest integer
14. **scaffold to** layer 15 and 16 **scaffold is** ignore Th/TTh (or higher) just think of H00/Th000
15. write e.g. 5738 or 5783 correct to the nearest 100
16. write e.g. 5308738 or 5308378 correct to the nearest 1000

factor

1. **scaffold to** write down all the factor pairs of e.g. 18 **scaffold is** multiplication grid, where every 18 is highlighted and given $1 \times 18 = 18$
2. **scaffold to** write down all the factor pairs of e.g. 32 **scaffold is** multiplication grid and given $2 \times 16 = 32$ {i.e. not found in multiplication grid}
3. write down a factor pair of e.g. 24
4. use double and half trick: e.g. complete this statement $2 \times 8 = 16 // 4 \times \dots = 16$
5. **scaffold to** write down all factor pairs of e.g. 24 **scaffold is** factor finding method hint to use layer 4 skills
6. **scaffold to** write down all factor pairs of e.g. 60 **scaffold is** prime factor tree of 60
7. write down all factor pairs of e.g. 20
8. find a factor of Ones from a list of numbers

multiple

1. **scaffold to** add some multiples of 10 to an incomplete 100 square and multiplication grid **scaffold is** given pictures or ruler
2. **scaffold to** write down the multiples of {2 or 5} **scaffold is** pictures of dots in rectangle
3. **scaffold to** write down the multiples of Ones and state next multiple **scaffold is** pictures of dots in rectangle and multiplication grid
4. **scaffold to** recognise multiples of Ones and state e.g. the 8th multiple of the One **scaffold is** table and incomplete multiplication square
5. recall and use the word **multiple**
6. **scaffold to** find LCM (lowest common multiple) of 2 numbers e.g. 6 and 8 OR 6 and 20 **scaffold is** guided method with some lists of multiples
7. find a multiple of a given Ones from a list {easy multiples 2, 5, 9, 10} LESLEY SPLIT OLD type of num (1)
8. find a multiple of a given Ones from a list {harder multiples 3, 4, 6, 7, 8} LESLEY SPLIT OLD type of num (1)
9. find LCM (lowest common multiple) of 2 numbers
10. find LCM (lowest common multiple) of 3 numbers

negative

1. read negative number off thermometer or number line {all negative labels missing}
2. order a mix of positive and negative numbers
3. **scaffold to** work out e.g. $3 - 9$ or $-9 + 3$ or $-3 + 9$ **scaffold is** given ticks above and crosses below horizontal line
4. e.g. $9 - 12$ {answer always negative}
5. negative + non-negative e.g. $-5 + 7$ or $-12 + 7$
6. **scaffold to** negative + negative **scaffold is** thinking about ticks above and crosses below horizontal line
7. negative + negative e.g. $-5 + -7$
8. **scaffold to** negative \times non-negative and negative \times negative
9. negative \times non-negative e.g. -5×7 or 5×-7
10. negative \times negative e.g. -5×-7
11. non-negative \div negative e.g. $35 \div -5$
12. negative \div integer e.g. $-35 \div 5$ or $-35 \div -5$
13. **scaffold to** non negative - negative and negative - negative
14. non-negative - negative e.g. $12 - -7$
15. negative - negative e.g. $-5 - -7$

orderInteger

1. select the largest or smallest number from a list {numbers up to 10}
2. write these numbers in order {numbers up to 10} Start with the smallest.
3. order a mix of numbers e.g. 9, 10, 19, 20, 29 Start with the smallest {to help with crossing 10s boundary when counting}
4. order a mix of numbers e.g. 9, 13, 27, 34, 62 etc {maximum one number with each T value}
5. select the largest or smallest number from a list of TO {to help with ordering with several numbers with the same T}
6. order list of 2 digit numbers {values represent e.g. length}
7. select the largest or smallest number from a list {numbers up to 999}
8. order list of 2 and 3 or 3 and 4 digit numbers {values represent e.g. length}
9. very simple use of $<$ and $>$ signs

place100value9999

1. complete a place value table given H00 written in words
2. write HTO {given in digits} in place value grid and write down the value of H or T {no digits are zero}
3. complete place value grid given HTO in words {T not 0}
4. write HTO (T not 0) in words
5. write Th HTO {given in digits} in place value grid and write down the value of Th H or T {no digits are zero}
6. complete place value grid given ThHTO in words (H, T not 0)
7. write ThHTO (H, T not 0) in words
8. complete place value grid given HTO and ThHTO as digits (H=0 or T = 0)
9. complete place value grid given HTO and ThHTO in words (H=0 or T = 0)
10. write HTO and ThHTO in words (H=0 or T = 0)
11. write words as a number: HTO and ThHTO (H=0 or T = 0)
12. state value of 10s write the value of the digit 6 in 567
13. state value of 100s write the value of the digit 5 in 567
14. state value of 1000s write the value of the digit 5 in 5674
15. FIND maybe EDIT state the value (T, H, Th) of e.g. 4 in 54 321 or 4321

prime

1. **scaffold to** write e.g. 24 as a product of its prime factors **scaffold is** prime factor tree of 24
2. **scaffold to** complete prime factor tree e.g. 200 {only $\div 10$ and $10 = 2 \times 5$ } **scaffold is** 10s given in incomplete tree
3. **scaffold to** complete prime factor tree e.g. 400 {only $\div 2$ or 10} **scaffold is** some 2s and 10s given in incomplete tree
4. **scaffold to** complete prime factor tree e.g. 180 {only $\div 2$, 9 or 10 and $9 = 3 \times 3$ } **scaffold is** some 2s, 9s and 10s given in incomplete tree
5. write e.g. 200 as a product of its prime factors {only $\div 10$ and $10 = 2 \times 5$ }
6. write e.g 180 as a product of its prime factors {only $\div 2$, 9 or 10 and $9 = 3 \times 3$ }
7. write e.g 330 as a product of its prime factors {only $\div 2$, 5, 9 or 10 and $\div 3$ up to 33}
8. find the HCF {highest common factor} of e.g. 44 and 60
9. find HCF and LCM of 2 numbers given each as a product of power of prime factors
10. learn the list of primes to 10
11. use prime factor tree to decide if {10 to 20} are prime
12. learn list of primes to 20
13. find a prime number from a list
14. write {harder number} as a product of its prime factors {must divide by 3, 7, 11, 13 etc}

sequenceMultiple

1. **scaffold to** write list of multiples of 2 starting at 0 **scaffold is** place value clues
2. **scaffold to** write list of multiples of 10 starting at 0 **scaffold is** place value clues
3. **scaffold to** count number of squares shaded in 100 square {only T0} **scaffold is** hint to use multiples of 10
4. **scaffold to** write list of multiples of 5 starting at 0 **scaffold is** place value clues
5. **scaffold to** write list of multiples of 2 starting at T0 **scaffold is** place value clues
6. **scaffold to** write list of multiples of 5 starting at T0 **scaffold is** place value clues
7. **scaffold to** write list of multiples of 2 starting at T0 {cross 100s boundary} **scaffold is** place value clues

givenADDSign

1. **scaffold to** work out $O + O$ {total ≤ 10 } **scaffold is** items in picture
2. **scaffold to** work out $O + O$ {total > 10 } **scaffold is** items in picture
3. **scaffold to** work out $O_{big} + O_{small}$ **scaffold is** “big” in a speech bubble and “small” fingers
4. work out $O_{big} + O_{small}$
5. **scaffold to** work out $TO + O$ **scaffold is** TO in a speech bubble and O fingers {NOT crossing 10s boundary}
6. **scaffold to** work out $TO + O$ **scaffold is** TO in a speech bubble and O fingers {crossing 10s boundary}
7. work out $TO + O$ e.g. $34 + 9$ {may cross 10s boundary}
8. **scaffold to** work out multiple of 10 + multiple of 10 e.g. $30 + 40$ **scaffold is** (a) partition, order and count on (b) columns (c) traditional partitioning
9. work out multiple of 10 + multiple of 10 e.g. $30 + 40$ {never over 100}
10. **scaffold to** work out $TO +$ multiple of 10 e.g. $34 + 40$ {no carry} **scaffold is** (a) partition, order and count on (b) columns (c) traditional partitioning
11. work out $TO +$ multiple of 10 e.g. $34 + 40$ {never over 100}
12. **scaffold to** work out $TO + TO$ e.g. $34 + 45$ {no carry} **scaffold is** (a) partition, order and count on (b) columns (c) traditional partitioning
13. work out $TO + TO$ e.g. $34 + 45$ {no carry}
14. **scaffold to** work out $TO + TO$ e.g. $34 + 49$ {ones carry} **scaffold is** (a) partition, order and count on (b) columns (c) partitioning with 10 carry clue
15. work out $TO + TO$ {ones carry} e.g. $34 + 49$

givenSUBsign

1. **scaffold to** work out $U_{big} - U_{small}$ **scaffold is** picture with counters crossed out
2. **scaffold to** work out $U_{big} - U_{small}$ **scaffold is** ticks above horizontal line paired with crosses below
3. **scaffold to** work out $U_{big} - U_{small}$ **scaffold is** ticks above horizontal line
4. work out $U_{big} - U_{small}$
5. **scaffold to** work out multiple 10 - multiple of 10 e.g. 70 - 40 **scaffold is** count on method, traditional columns and block diagram
6. work out multiple 10 - multiple of 10 e.g. 70 - 40
7. **scaffold to** work out TO - multiple of 10 e.g. 76 - 40 **scaffold is** count on method, traditional columns and block diagram
8. work out TO - multiple of 10 e.g. 76 - 40
9. **scaffold to** work out TO - to e.g. 76 - 43 {no borrow} **scaffold is** count on method, traditional columns and block diagram
10. work out TO - to e.g. 76 - 43 {no borrow}
11. **scaffold to** work out To- tO e.g. 74 - 46 {i.e. borrow} **scaffold is** count on method, traditional columns and block diagram
12. work out To- tO e.g. 74 - 46 {i.e. borrow}
13. **scaffold to** work out TO - o e.g. 76 - 4 {no borrow} **scaffold is** count on method, traditional columns and block diagram
14. work out TO - o e.g. 76 - 4 {no borrow}
15. **scaffold to** work out To - O e.g. 74 - 6 {i.e. borrow} **scaffold is** count on method, traditional columns and block diagram
16. work out To - O e.g. 74 - 6 {i.e. borrow}

given Xsign

1. **scaffold to** work out $\text{Ones} \times \text{Ones}$ **scaffold is** dots in rectangle {encourage counting}
2. **scaffold to** work out $\text{Ones} \times \text{Ones}$ given multiplication square **scaffold is** guided 2 ways to count squares and link to numbers in row/column of multiplication square
3. work out $\text{Ones} \times \text{Ones}$ given multiplication square
4. **scaffold to** work out $\text{Teen} \times \text{Ones}$ **scaffold is** given i/c Gelosia and partitioning and the Ones row from a multiplication square {Gelosia carry NOT required}
5. **scaffold to** work out $\text{HTO}/\text{TO} \times \text{TO}$ **scaffold is** given i/c multiplication square {beginXfacts are missing} and i/c Gelosia {Gelosia carry NOT required}
6. **scaffold to** work out $\text{TO} \times \text{Ones}$ **scaffold is** given i/c Gelosia and partitioning and the Ones row from a multiplication square {Gelosia carry IS required}
7. work out $\text{TO} \times \text{Ones}$
8. **scaffold to** work out $\text{HTO}/\text{TO} \times \text{TO}$ **scaffold is** given i/c multiplication square {beginXfacts are missing} and i/c Gelosia {Gelosia carry IS required}
9. **scaffold to** work out $\text{TO} \times \text{TO}$ **scaffold is** given i/c multiplication square {beginXfacts are missing} and i/c partitioning
10. work out $\text{TO} \times \text{TO}$
11. work out $\text{HTO} \times \text{TO}$
12. work out $\text{HTO}/\text{TO} \times \text{TO}$
13. **scaffold to** work out e.g. $1 \times 2 \times 3 \times 4 \times 5$ or $2 \times 2 \times 3 \times 3$ **scaffold is** hints (hardest first + find 10s + double last)

numberX10etc

1. **scaffold to** work out $\text{Ones} \times 10$ **scaffold is** fingers to count in 10s
2. work out $\text{Ones} \times 10$
3. **scaffold to** work out $\{\text{TO or HTO}\} \times 10$ **scaffold is** place value grid {no 0s in middle/end
e.g. NOT $\{20 \text{ or } 200 \text{ or } 207 \text{ or } 270\} \times 10$ }
4. work out $\{\text{TO or HTO}\} \times 10$ or v.v. {but NOT $\{20 \text{ or } 200 \text{ or } 207 \text{ or } 270\} \times 10$ }
5. **scaffold to** work out $\{\text{Ones or TO but NOT T0}\} \times \{10 \text{ then } 100 \text{ then } 1000\}$ **scaffold is**
place value grid
6. **scaffold to** work out e.g. $\{20 \text{ or } 203\} \times \{10 \text{ or } 100 \text{ or } 1000\}$ **scaffold is** place value grid
LESLEY PART of (4) n (5) warm up and then delete
7. work out $\{\text{T0 or H00}\} \times 10$ or v.v.
8. work out $\{\text{O or TO or HTO}\} \times \{100 \text{ or } 1000\}$ or v.v.
9. **scaffold to** work out (as complex as) $\text{HTO.th} \times 10$ **scaffold is** place value grid
10. work out (as complex as) $\text{HTO.th} \times 10$ {decimal point given, NO need to add trailing 0s}
11. **scaffold to** HTO.th by 100 or 1000 ADD trailing 0s **scaffold is** place value grid
12. work out (as complex as) $\text{HTO.th} \times \{100 \text{ or } 1000\}$ {decimal point given, ADD trailing 0s}
13. **scaffold to** e.g. $0.\text{dddd} \times \{10 \text{ or } 100 \text{ or } 1000\}$ **scaffold is** delete leading 0s in place value
grid
14. work out e.g. $0.00123 \times \{10 \text{ or } 100 \text{ or } 1000\}$ {DELETE leading 0s}

beginXfacts

1. **scaffold to** write $2 \times \{2, 3, 4, 5\}$ **scaffold is** pair of hands with unwanted fingers crossed out
2. **scaffold to** write $\{2, 3, 4, 5\} \times 2$ or v.v. **scaffold is** e.g. 3×2 dots in rectangle
3. **scaffold to** write $\{2, 3, 4, 5, 6, 7, 8, 9, 10\} \times 10$ or v.v. **scaffold is** diagram
4. $\{2 \text{ to } 10\} \times 10$ and $\{2 \text{ to } 5\} \times 2$ and v.v.
5. **scaffold to** work out $\text{Ones} \times 5$ **scaffold is** use fingers and place value
6. **scaffold to** write $\{3, 4, 5, 6, 7, 8, 9\} \times 5$ or v.v. **scaffold is** e.g. 3×5 dots in rectangle
7. $\{3 \text{ to } 8\} \times 5$ and v.v.
8. **scaffold to** find $\{2 \text{ to } 9\} \times 9$ **scaffold is** example of fingers trick
9. $\{2 \text{ to } 9\} \times 9$ and v.v.
10. **scaffold to** write $2 \times \{6, 7, 8, 9\}$ **scaffold is** use fingers and (imaginary) toes
11. $\{6 \text{ to } 8\} \times 2$ and v.v.
12. **scaffold to** write $1 \times \{2, 3, 4, 5, 6, 7, 8, 9, 10\}$ or v.v. **scaffold is** e.g. 7×1 dots in rectangle
13. $\{1 \text{ to } 10\} \times 1$ and v.v.
14. write down the value of 2^2 , 5^2 , 9^2 or 10^2

improveXfacts

1. **scaffold to** write down $\{4, 8\} \times \{3, 4\}$ **scaffold is** doubling and doubling (and doubling)
2. write down $\{4, 8\} \times \{3, 4\}$ and v.v.
3. **scaffold to** write down $\{4, 8\} \times \{6, 7, 8\}$ **scaffold is** doubling and doubling (and doubling)
4. write down $\{4, 8\} \times \{6, 7, 8\}$ and v.v.
5. **scaffold to** write down 4^2 , 6^2 or 8^2 **scaffold is** long winded use of product of prime factor
6. write down 4^2 , 6^2 or 8^2
7. **scaffold to** write down $3 \times \{3, 6, 7\}$ **scaffold is** choice of 2 long winded ways to calculate
8. write down $3 \times \{3, 6, 7\}$ and v.v.
9. **scaffold to** write down $7 \times \{3, 6, 7\}$ **scaffold is** e.g. $1 \times 6 + 2 \times 6 + 4 \times 6$
10. write down $\{6, 7\} \times \{6, 7\}$
11. write down 1^2 , 3^2 or 7^2
12. **scaffold to** write down e.g. 10^7 and how to say **scaffold is** help with sectioning off in 000
13. write out 2^1 to 2^6 on fingers
14. **scaffold to** write down 2^7 to 2^{10} **scaffold is** given 2^1 to 2^6 on first 6 fingers
15. write out 2^1 to 2^{10} on fingers

givenDIVsign

1. **scaffold to** work out e.g. $14 \div 2$ or $\frac{1}{2}$ of 14 {answer 1 to 9} **scaffold is** example pictures with dots and told $\div 2$ and $\frac{1}{2}$ are ways of writing half
2. **scaffold to** work out e.g. $12 \div 3 = 4$ **scaffold is** example showing sharing into boxes
3. **scaffold to** e.g. $24 \div 3 = 4$ given multiplication square **scaffold is** complete sharing into boxes and looking up in grid
4. **scaffold to** e.g. $24 \div 3 = 8$ **scaffold is** example to complete writing out multiples of 3
5. **scaffold to** e.g. $24 \div 3 = 8$ **scaffold is** given multiplication square
6. **scaffold to** work out e.g. $228 \div 6 = 38$, **scaffold is** given the 6 times table row and help with finding the tens digit of the answer
7. **scaffold to** work out e.g. $56 \div 7 = 8$, $85 \div 17 = 5$ {by look up} and $98 \div 7 = 14$, $680 \div 17 = 40$ {by adjust} **scaffold is** given the 7 and 17 times table rows with gaps {1, 2, gap, 4, 5, gap, gap, 8, gap, 10}
8. **scaffold to** write easy to work out multiples of O and TO **scaffold is** doubling method for {2, 4, 8} , $\times 10$ and then $\div 2$ for {10, 5}
9. **scaffold to** work out $24 \div 3$ **scaffold is** complete prime factor tree {to help with dividing by 3, 5, 7, 11, 13}
10. **scaffold to** work out e.g. $581 \div 7 = 83$ **scaffold is** given the 7 times table rows with gaps {1, 2, gap, 4, 5, gap, gap, 8, gap, 10}
11. work out given $\div O_1 = TO_2$: slightly easier because T is 2, 4, 5 or 8, however O_1 is not
12. work out given $\div O_1 = TO_2$: harder because O_1 and T are rarely 1, 2, 4, 5 or 8
13. work out given $\div TO_1 = TO_2$ (slightly easier because all digits are 1, 2, 4, 5 or 8)
14. divide by TO_1 gives TO_2 (harder because O_2 is 1, 3, 5, 6, 7 or 9)
15. divide by TO_1 gives HTO_2 (harder because O_2 is 2, 4, 8, 0)
16. divide by TO_1 gives HTO_2 (harder because O_2 is 1, 3, 5, 6, 7 or 9)

beginDIVfacts

1. scaffold to 2
2. given $\div 2 = \{2, 3, 4, 5\}$
3. scaffold to 4
4. given $\div \text{Ones} = 1$
5. **scaffold to** find $\div 5$ facts **scaffold is** guided to use fingers and place value
6. given $\div 5 = \{2 \text{ to } 9\}$
7. **scaffold to** find $\div 9$ facts **scaffold is** guided to use fingers trick
8. given $\div 9 = \{2 \text{ to } 9\}$
9. scaffold to 10
10. given $\div 2 = \{6, 7, 8, 9\}$
11. Ones $\div 1 = \text{Ones}$
12. given $\div \text{Ones} = 10$
13. scaffold to 14
14. square root of $\{100, 4 \text{ and } 1\}$

improveDIVfacts

1. given $\div \{3, 4, 6, 7, 8\} = 2$
2. **scaffold to** use \div facts to derive others **scaffold is** e.g. $56 \div 2 \rightarrow 56 \div 4 \rightarrow 56 \div 8$
3. given $\div 4 = \{3, 5, 6, 7\}$ (easier: half and half again)
4. given $\div 8 = \{3, 5, 6\}$ (easier: half, half and half again)
5. given $\div 4 = \{4, 8, 9\}$ (harder: half and half again)
6. given $\div 8 = \{4, 7, 8, 9\}$ (harder: half, half and half again)
7. given $\div 3 = \{4, 6, 8, 9\}$ (use product of prime factor)
8. given $\div 6 = \{3, 4, 5, 6, 8, 9\}$ (use product of prime factor)
9. given $\div 7 = \{4, 5, 8, 9\}$ (use product of prime factor)
10. square root of 9, 25 and 81
11. square root of 16, 36 and 64
12. given $\div 3 = \{3, 5, 7\}$ and given $\div 6 = 7$ (product of prime factor does NOT help)
13. given $\div 7 = \{3, 6, 7\}$ (product of prime factor does NOT help)
14. square root of 49