Level 17 Card 1 **Times tables x2, x5, x10, x3, x4, x6, x7, x8**

1. **Write the number that is:**

a) 2 less than 1 million
b) 40 less than 1 million
c) 100 less than 1 million

2. **Addition**

a) 100,000 + 40,000 + 700 + 59 = □
b) 500,000 + 72,000 + 367 = □
c) 270,000 + 10,000 + 210 + 5 = □

3. **Equal or not equal (= or ≠) Use BOMDAS**

a) 16 x (18 ÷ 9) □ (18 ÷ 9) x 16
b) 67 + (45 x 0) □ (67)
c) 29 + 30 – (⅕ of 35) □ 7 x 6 + 15

4. **Fractions**

a) If ½ of 24 = □ then ½ of 48 = □
b) If ⅕ of 30 = □ then ⅕ of 60 = □
c) If ⅓ of 60 = □ then ⅓ of 120 = □
d) If ⅙ of 42 = □ then ⅚ of 42 = □
e) If ⅛ of 64 = □ then ⅜ of 64 = □
f) If ⅛ of 96 = □ then ⅞ of 96 = □

5. **Subtraction**

a) Find the difference between 901 and 400,000.
b) Find the difference between 50,050 and 55,015.
c) How much less than 85,047 is 75,958?
d) How much more than four thousand and fourteen is fifty thousand?
e) What must I add to 79,643 to get 89,248?

Level 17 Card 2

1. **Write in figures:**
   a) Two hundred and forty-eight thousand and nine
   b) Seven hundred thousand and seven
   c) Nine hundred and ninety-nine thousand and fifty-six
   d) One million and one
2. **Use brackets to make this equation true:** (Try the two options for the brackets and see which one works!)
   a) 27 ÷ 9 ÷ 3 = 9
   b) 64 ÷ 8 ÷ 2 = 4
   c) 63 ÷ 21 ÷ 3 = 9
   d) 40 ÷ 5 ÷ 2 = 4
   e) 48 ÷ 42 ÷ 7 = 8
3. **More equations** (Use BOMDAS)
   a) 9 x (9 – 5) ÷ 6 = 3 + □
   b) 7 x 3 x 2 + 5 ÷ 5 = □
   c) 150 – 51 + 27 ÷ 9 = □
   d) 9 x 6 + 200 – 9 = □
   e) 600 – 40 + 56 ÷ 8 = □
   f) ½ of (7 x 6) + 120 = □
4. **Adding 9**
   a) If 368 + 10 = □ then 368 + 9 = □
   b) If 1,427 + 10 = □ then 1,427 + 9 = □
   c) If 8,093 + 10 = □ then 8,093 + 9 = □
   d) If 20,645 + 10 = □ then 20,645 + 9 = □
   e) If 899,204 + 10 = □ then 899,204 + 9 = □
   f) If 900,300 + 10 = □ then 900,300 + 9 = □

Level 17 Card 3

1. **Finish the counting:**

a) 2,937 2,941 2,945 ……2,965
b) 27,195 27,095 ……26,695
c) 201,000 201,025 ……201,150

2. **= or ≠**

a) 46 + 37 – 54 □ 54 – 37 + 46
b) 98 + 21 – 14 □ 98 + 31 – 4
c) 49 ÷ 7 + 15 □ 7 x 7 + 15

3. **Work out the brackets first:**

a) 9 + (5 + 2) =
b) (5 x 4) x 2 =
c) (9 + 5) + 2 =
d) 5 x (4 x 2) =
e) 12 + (5 – 3) =
f) 10 x (9 ÷ 3) =
g) (12 + 5) – 3 =
h) (10 x 9) ÷ 3 =

4. **Put the brackets in the right place to make the equation true.**

a) 8 – 6 x 3 = 6
b) 10 – 8 – 4 = 6
c) 15 x 12 ÷ 3 = 60
d) 6 + 4 ÷ 2 + 2 = 7
e) 24 – 12 x 2 = 0
f) 3 x 8 – 6 = 6
g) 36 + 45 ÷ 9 = 9

Level 17 Card 4

1. **Continue the pattern**

a) 2 + 3 = □ 20 + 30 = □ 200 + 300 = □ 2000 + 3000 =
b) 5 + 4 = □ ……5000 + 4000 =
c) 6 + 3 = □ ……6000 + 3000 =

2. Multiplication

194	246	321	429	763	444
X 3	X7	X8	X9	X6	X4

3. **Addition with money** (Set out - decimal points underneath each other.)

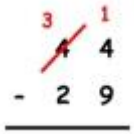
a) $48.35 + $69.55
b) $127.20 + 362.80
c) $63.40 + 297.60
d) $378.00 + 60 cents
e) 70 cents + 90 cents + $2.20

4. **Division patterns**

a) 8 ÷ 8 -= □ 80 ÷ 8 = □ 800 ÷ 8 = □ 8000 ÷ 8 = □
b) 36 ÷ 9 = □ 360 ÷ 9 = □ 3600 ÷ 9 = □
c) 18 ÷ 3 = □ 180 ÷ 3 = □ 1800 ÷ 3 = □

5. **Subtraction**

Set these out like the example shown.



a) 82 – 54 =
b) 128 – 76 =
c) 642 – 127 =
d) 365 – 177 =

Level 17 Card 5

1. **Write each of these numbers in figures.** The first one is done for you.

a. five thousand and one = 5,001
b. Thirteen thousand and seventy =
c. Ten thousand, six hundred and eighteen =
d. Twenty-two thousand, five hundred and ninety-three

2. **State the place value of each underlined digit.**

a) 5<u>9</u>6 b) <u>9</u>,234 c) 3 70<u>6</u>
d) <u>1</u>4,007 e) <u>4</u>9 f) 56,<u>5</u>83

3. Rounding numbers the nearest ten, e.g. 37 and 32
Ask: "What is the next ten above 30? What is half way in-between 30 and 40? (35). Ask, "Is 37 above 35? Yes!" So, round it to 40. For 32, ask, "Is the 32 above 35? No! So, round it to 30. Now round these to the nearest ten:

a) 56 b) 24 c) 39 d) 88 e) 71 f) 44

4. Subtraction

a) 607 is □ less than 34,204.
b) 35,216 is □ more than 25,608.
c) What must I subtract from 25,000 to get 15,050?
d) By how much does 99,019 exceed 13,030?
e) By how much does 99,019 exceed 13.030?

Level 17 Card 6

1. Write each of these numbers in words.

a) 6,107
b) 82,372
c) 65,009
d) 38,412

2.Factors

Factors are the numbers you multiply together to get another number. e.g. Factors of 8:
1 x **8** = 8; **2** x **4** = 8 so the factors are 1, 8, 2 and 4
Try these:

a) Factors of 16 =
b) Factors of 32 =
c) Factors of 45 =
d) Factors of 12=

3.Prime Numbers & Composite Numbers

Prime numbers are numbers that have only two factors. e.g. What are the factors of 3? There are **only** two factors
1 x **3** = 3
Composite numbers are numbers that have more than two factors, (like the ones in Number 2 above). Say whether these are Prime numbers or Composite numbers

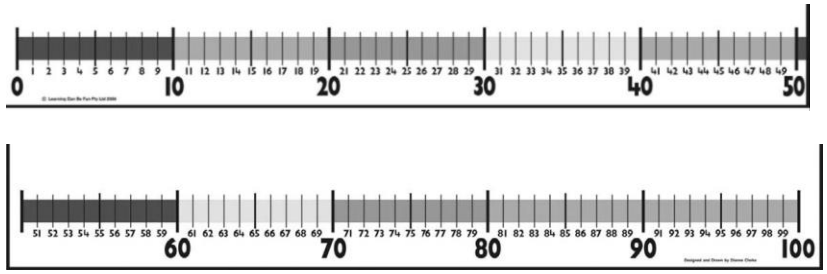
a)5 b)27 c)36 d)19 e)40 f)41 g)18

Level 17 Card 7

1. **The number is 38,120.**

a) Make four numbers that have five digits.
b) Arrange the numbers in ascending order.
c) Arrange the numbers in descending order.

1. Rounding numbers to the nearest ten

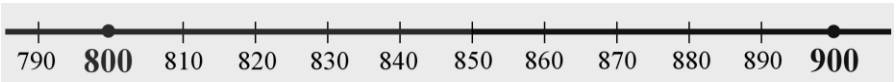


Use the number line to round these numbers:
a)37 b) 28 c) 7 d) 42 e) 64 f) 76 g) 57 h) 94 i)82

2. Rounding numbers the nearest hundred, e.g. 867 and 834

Ask: "What is the next hundred above 800? What is half way in-between 800 and 900? (250). Ask, "Is 867 above 850? Yes!" So, round it to 900. For 834, ask, "Is the 834 above 850? No! So, round it to 800. Now round these to the nearest hundred.

a) 857 b) 564 c) 289 d) 342 e) 790 f) 981 g) 423



Level 17 Card 8

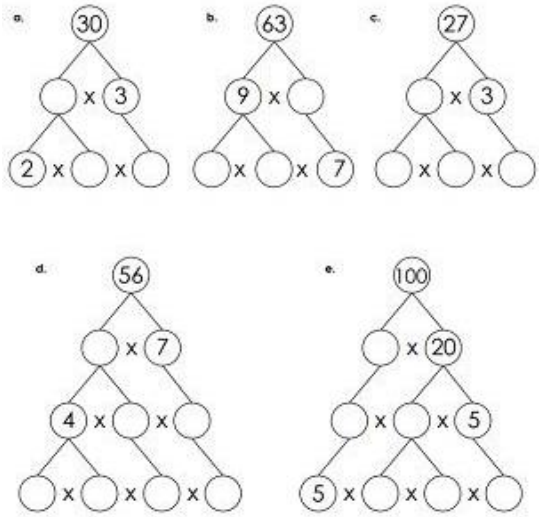
1. Ordering numbers

The table below shows the diameter of the planets in the solar system, in km.

Mercury 4,879	Venus 2,104	Earth 12,756	Mars 6,805
Jupiter 142,984	Saturn 120,536	Uranus 51,118	Neptune 49,528

a) Which planet has the largest diameter?
b) Which planet has the smallest diameter?
c) Name the four planets with the smallest diameters.
d) Arrange the diameters of these planets in ascending order (smallest to largest).

2. **Factor trees.** Copy these and complete them.



Level 17 Card 9

1. **Equations.** Use brackets where necessary to make these equations true.
   a) 12 – 8 – 4 = 8
   b) 32 ÷ 8 ÷ 2 = 8
   c) C) 17 – 8 – 3 = 6
   d) 35 + 17 + 41 = 93
   e) 27 x 9 ÷ 9 = 27
2. **Addition using rounding**
   a) 7156 + 97
      = 7156 + 100
      = 7256 – 3 (because 97 is 3 less than 100) = □
   b) 5674 + 89
      = 5674 + 100
      = □ - □ (because 89 is □ less than 100 = □

3. **Addition**

a) 5284 + 2963 _____
b) 4618 + 3812 _____
c) 3219 + 2537 _____
d) 8078 + 5951 _____
e) $56.74 + $63.84 _____

4. **Problem Solving**

Mr. Tava bought a new car for $19,990. He also bought air conditioning for $1,350 and a TV for $850. How much did he spend?

Level 17 Card 10

Decimal Equivalents for Tenths and Hundredths

0.1	$\frac{1}{10}$	0.03	$\frac{3}{100}$
0.5	$\frac{5}{10}$	0.08	$\frac{8}{100}$

0.44	$\frac{44}{100}$
0.58	$\frac{58}{100}$

1. Draw a Place Value chart like the one below one and write the numbers in the right columns for:

a) 34.75 b) 156.07 c) 0.75

hundreds	tens	ones		tenths	hundredths
			.		
			.		
			.		

2. Count by tenths

a) 6.8, __, __, __, __, __, __, __, __, __, __, __, 8
b) 7.64, __, __, __, __, __, __, __, __, __, __, 7.84
c) 27.3, __, __, __, __, __, __, __, __, __, __, 28.4

3. Count by hundredths

a) 0.89, __, __, __, __, __, __, __, __, __, __, 1
b) 14.88, __, __, __, __, __, __, __, __, __, __, 14.99

Level 17 Card 11

1. **Addition**

a)	b)	c)	d)	e)
$327.81	83175	75263	63 520	49 785
+ $146.25	+ 9 654	+ 7491	+10 692	+23 283
_____	_____	_____	_____	_____

2. **Addition Problem Solving**

a) At Marau Primary School there are 324 girls on the school roll and 289 boys. How many children attend the school?

b) In a relay, Terry ran 2 195m, Susana ran 1 983 m, Lupe ran 2 035m and Veena ran 1 907m. How long was the relay?

c) A soap factory made 26 680 bars of soap in October and 14 525 bars of soap in November. How many bars of soap did the factory make altogether?

3. Subtraction

a)	b)	c)	d)
5735	3406	$97.82	3284
- 2168	- 1 658	- 35.97	- 1537
_____	_____	_____	_____

3. **Subtraction Problem Solving**

Seven thousand, four hundred and thirty-five people attended athletics meeting. If 4,650 were adults, how many children attended?

Level 17 Card 12

1. **Multiplying ones by tens**

Example: 4 x 3 = 12 4 x 30 = 120 (add zero)

a. 4 x 40 = ___ b. 7 x 20 = ___ c. 5 x 90 = ___
d. 6 x 80 = ___ e. 3 x 70 = ___ f. 8 x 80 = ___
g. 9 x 20 = ___ h. 6 x 40 = ___ i. 2 x 80 = ___

2. **Multiplying tens by tens**

Example: 4 x 6 = 24 40 x 60 = 2400 (add 2 zeros)

a) 60 x 40 = b) 80 x 50 = c) 30x 40 =
d) 2 x 60 = e) 80 x 40 = f) 60 x 70 =
g) 70 x 50 = h) 90 x 20 = i) 30 x 70 =

3. **Problem solving**

a) Each day Farmer Jale gives his pigs 56 kilograms of pig feed. How much pig feed do his pigs eat in a week?
b) A dozen doughnuts cost $5.95. How much do six dozen doughnuts cost?
c) 609 people attended a music concert. If they all paid $8 each, how much money was collected?
d) Mrs Ali has 7 bank accounts with $367 in each account. How much does she have altogether?

4. **Write this number:**

3 x 10 + 5 x 1000 + 4 x 1 + 7 x 10,000 =

Level 17 Card 13

1. **Write division facts** that can be made into multiplication facts.

   e.g. 5 x 7 = 35 35 ÷ 7 = 5 or 35 ÷ 5 = 7

a) 5 x 6 = □ □ ÷ □ = □ or □ ÷ □ = □

b) 6 x 8 = □ □ ÷ □ = □ or □ ÷ □ = □

c) 4 x 9 = □ □ ÷ □ = □ or □ ÷ □ = □

d) 8 x 7 = □ □ ÷ □ = □ or □ ÷ □ = □

2. **Division with remainders**

a) 16 ÷ 5 = __3__ r __1___ b) 37 ÷ 7 = ____ r _____

c) 47 ÷ 6 = ____ r _____ d) 83 ÷ 9 = ____ r _____

e) 26 ÷ 8 = ____ r _____ f) 51 ÷ 6 = ____ r _____

g) 16 ÷ 7 = ____ r _____ h) 14 ÷ 4 = ____ r _____

3. Problem solving

a) 3,600ml of water was poured into 8 jugs of equal size. How much water is there in each jug?

b) 5,782 km of road is divided into 7 equal sections. What is the length of each section?

c). 2,700 kilograms of iron is to be placed equally into 6 containers on a ship. How many kilograms will be in each container?

Level 17 Card 14

1. **Order these fractions from lowest to highest:**

Use a fractions mat ⅙ ⅓ ⅛ ⅚ ⅘

(See Level 16 Card 8)

2. **Fractions: Mixed numbers**

Change these mixed numbers to improper fractions:

1) $5\frac{1}{3}$ = ____ 6) $2\frac{1}{2}$ = ____ 11) $9\frac{1}{5}$ = ____

2) $2\frac{1}{8}$ = ____ 7) $3\frac{1}{4}$ = ____ 12) $6\frac{1}{2}$ = ____

3) $3\frac{1}{4}$ = ____ 8) $6\frac{1}{10}$ = ____ 13) $5\frac{4}{9}$ = ____

4) $3\frac{2}{9}$ = ____ 9) $5\frac{7}{10}$ = ____ 14) $9\frac{2}{3}$ = ____

5) $9\frac{3}{8}$ = ____ 10) $9\frac{1}{2}$ = ____ 15) $2\frac{3}{8}$ = ____

3. **Change these improper fractions to mixed numbers.**

1) $\frac{9}{4}$ = ____ 6) $\frac{11}{5}$ = ____ 11) $\frac{71}{10}$ = ____

2) $\frac{82}{9}$ = ____ 7) $\frac{61}{6}$ = ____ 12) $\frac{29}{7}$ = ____

3) $\frac{31}{5}$ = ____ 8) $\frac{7}{3}$ = ____ 13) $\frac{55}{6}$ = ____

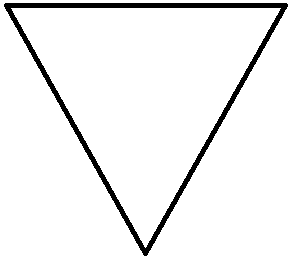
4) $\frac{13}{3}$ = ____ 9) $\frac{50}{7}$ = ____ 14) $\frac{21}{10}$ = ____

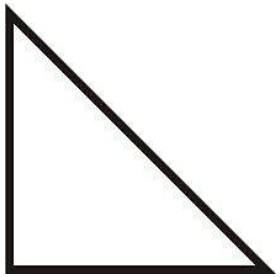
5) $\frac{29}{7}$ = ____ 10) $\frac{17}{4}$ = ____ 15) $\frac{25}{4}$ = ____

Level 17 Card 15

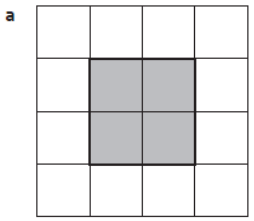
Measurement: Perimeter and Area

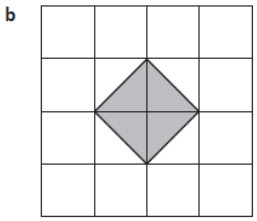
1. **Measure and record the perimeter of each triangle**

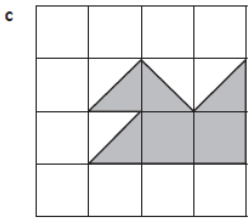
a) 

b) 

2. **What is the area of each shape?** Each square has an area of 1 $cm^{2.}$







3. Problem solving

a) The area of a bookmark is 20 square centimetres. The bookmark is 2 centimetres wide. How long is it? (Draw this.)

b) A rectangular school yard is 178m long and 100m wide. Find its area.

Level 17 Card 16

1. Identify the pattern and write the next four numbers.

a) 3, 6, 5, 10, 9, ___, ___, ___, ___

b) 3, 6, 12, 24, ___, ___, ___, ___

c) 3, 4, 8, 9, 18, 19, ___, ___, ___, ___

d) 7, 5, 15, 13, 39, ___, ___, ___, ___

e) 10, 9, 90, 89, 890, ___, ___, ___, ___

2. Perimeter and Area problems

a) Mrs. Mani wants new carpeting for her living room. Her living room is an 8 m long and 8 m wide rectangle. How much carpeting does she need to buy to cover her entire living room?

b) Mr. Kameli made a rectangular flower garden that is 10 m long and 2 m wide. One bag of soil can cover 100 cm^2. How many bags will he need to cover the entire garden?

3. Measurement: Volume and Capacity

1000 milliletres = 1 litre (1000 ml = 1 L)

a) □ litres = 2 000 millilitres

b) □ litres = 500 millilitres

c) □ litres = 7 500 millilitres

d) □ litres = 250 millilitres

e) □ millilitres = 4 litres

f) □ millilitres = ¾ litre

g) □ millilitres = 12 litres

h) □ millilitres = 2 ¼ litres

Level 17 Card 17

Estimating Capacity

1. If a flask holds 50ml of water when full, how many flasks would be needed to fill:

a) a 500 ml water bottle?

b) 375 ml can?

c) 1 litre milk container?

d) 250 ml mug?

2. What products are sold in containers holding the following quantities?

e) less than 100 ml

f) 100 ml to 500 ml

g) 500 ml to 1 000 ml

h) more than 1 L

3. Which measurement is most likely?

a) A can of juice is most likely to hold 350 ml or 350L?

b) Mr. Bale was painting his kitchen. Did he most likely buy 10L or 10 ml of paint?

c) A wheelbarrow would most likely hold 170 ml or 170L of water?

4. A jug holds 2 litres. How many of these could it fill?
   a) Cups that hold 250 ml?
   b) Bottles that hold 100 ml?
   c) Bowls that hold 400 ml?

Level 17 Card 18 Test **(Score out of 20)**

1. **Write in figures:** Three hundred and fifty-two thousand and eight
2. 400,000 + 32,000 + 478 = □
3. **Equal or not equal (= or ≠) Use BOMDAS**
   16 x (14 ÷ 7) □ (14 ÷ 7) x 16
4. 9 x (9 – 5) ÷ 6 = 3 + □
5. **Use brackets to make the equation true.** 8 – 6 x 3 = 6
6. Set this out with numbers underneath each other:
   482 – 354 =
7. Find the difference between 1,051 and 5,036.
8. List all the factors of 12, e.g. 1 x 12 = 12 (3 marks)
9. Round 865 to the nearest hundred.
10. Multiplication: 194
    X 5
11. Count by tenths

6.8, __, __, __, __, __, __, __, __, __, __, __, 8

12. In one year, a toy factory made 36,680 toy cars, 7.000 toy dinosaurs and 25,279 dolls. How many toys did the factory make altogether?

13. 46 ÷ 7 = □ r □

14. Change 3⅔ to an improper fraction.

15. **Write this number:**
    4 x 10 + 6 x 1000 + 5 x 1 + 8 x 10,000 =

16. If 5 x 7 = 35 then 50 x 70 = 2400

17. The area of a book that is 25 cm x 10 cm = ___ ^{2}cm.

18. 0.34 = $\frac{\ }{100}$