**Level 16 Card 1** Times tables x2, x5, x10, x3, x4, x6, x7

**1. Write in figures:**

   a) Seven thousand, eight hundred and fifty-six

   b) Twenty-three thousand two hundred and forty

   c) Sixty-four thousand and fifty

   d) Eighty-three thousand and three

**2. Place value**

   a) How many ones in 26,975?

   b) Write the highest possible number from these figures: 2, 3, 0, 8, 4

   c) Write the figure that has the greatest values IN this number: 19,786

   d) Make the smallest possible number from these figures: 4, 6, 2, 7, 8

**3. Addition**

   a) Find the sum of: 39,847 and 28, 958

   b) What is the total of these numbers?

    56,379 + 568 + 96 + 2,357 + 6 + 5,634

   c) Fourteen thousand, nine hundred and eighty-six PLUS twenty-seven thousand, eight hundred and sixty-four

   d) What is 65,878 more than 29,863?

   e) 29,786 + 8,695 + 36,589

   f) 89,456 plus 10,000 =

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**Level 16 Card 2**

**1. Doubling and halving**

   a) Double 350

   b) Double 245

   c) Halve 682

   d) Halve 900

**2. Extended notation**

   a) 60,000 = □ x 10,000

   b) 60,000 = □ x 1,000

   c) 60,000 = □ x 100

   d) 60,000 = □ x 10

**3. Subtraction**

   a)    596 = 500 + 90 + 6  (Hint: borrow 10 from the 90)

     -  279 = 200 + 70 + 8

        _____

   b)    763 = 763 + 60 + 3  (Hint: borrow 10 from the 60)

     -  248 = 200 + 40 + 8

        _____

Set these out in the same way:

   c) 852 – 328

   d) 793 – 487

   e) 486 – 248

   f) 792 – 575

   g) 390 - 123

**Level 16 Card 3**

**1. Add**

a) 7 + 9 = □   17 + 9 = □   97 + 9 = □   897 + 9 = □

b) 6 + 8 = □   16 + 8 = □   96 + 8 = □   726 + 8 = □

c) 4 + 7 = □   14 + 7 = □   94 + 7 = □   354 + 7 = □

**2. Subtract**

a) 12 − 7 = □   22 − 7 = □   992 − 7 = □

b) 9 − 3 = □   29 − 3 = □   649 − 3 = □

c) 11 − 8 = □   21 − 8 = □   561 − 8 = □

**3. Write in figures which of these is the largest number:**

- Fifty-five thousand five hundred and five
- Fifty-five thousand five hundred and fifty
- Fifty-five thousand five hundred and fifteen
- Five thousand and five

**4. Which is the second smallest number?**

- 88,180
- 88,108
- 88,801
- 88,118
- 88,881
- 88,810

**Level 16 Card 4**

**1. Place value**

a) Write a number of 5 digits where 9 has the value of ninety thousand.

b) 4 hundreds + 80,000 + 6 tens =

c) 7 ones + 60 tens + 2 ten thousands =

**2. Multiplication**

a) 643  243  496  528
  X 8   X7   X6   x11

**3. Fractions**

Draw 3 rectangles 8 cm long and 1 cm high.

a) Colour 2 eighths. 2 eighths is the same as □

b) Colour 6 eighths. 6 eighths is the same as □

c) Colour 4 eighths. 4 eighths is the same as □

4. Repeated subtraction is the same as division.

a) 12 − 4 − 4 − 4 = 0 so 12 ÷ 4 = □

b) 63 − 9 − 9 − 9 − 9 − 9 − 9 − 9 = 0 so 63 ÷ 9 = □

c) 35 − 7 − 7 − 7 − 7 − 7 = 0 so 35 ÷ 7 = □

5. = or ≠

a) 80 tens + 72 hundreds + 6 ones □ 61 hundreds + 72 tens + 7 ones

b) 17 hundreds + 68 tens + 7 ones □ 13 hundreds □ 43 tens + 8 ones

**Level 16 Card 5**

**1. Place value**

a) Write in figures the number that is made up of 9 ones, 3 ten-thousands, 60 tens

b) Write in words the number after 99,999

c) Write in figures the number that is one more that 39,099

d) $74,986 = 70,906 + \square$

**2. Real-Life Problems Involving Measures**

a) Ana has to travel a distance of 20km. She travels 15km on a bus and 3.5km by car. She walks the rest of the way. How far does she have to walk?

b) I want to make 12 cakes. If I know that 6kg of flour is enough for 36 cakes, how much flour will I need?

c) My car travels 30km for every litre of fuel I put in. A litre of fuel costs $1.50. How far can I drive for $12.00?

**3. Division with remainders**

$5\,\overline{)222}$     $8\,\overline{)108}$     $6\,\overline{)69}$

$8\,\overline{)148}$     $5\,\overline{)73}$     $6\,\overline{)177}$

**Level 16 Card 6**

**1. Place value**

a) What is the sum of the digits in the number 76,942?

b) Write in figures nineteen hundred and sixty-two

c) Put these numbers in order: 24,351; 24,349; 24,352; 24,350

**2. Real-Life Problems Involving Measures**

a) When a bucket is full it holds exactly 5 ½ litres. A jug holds 500millilitres. How many full jugs of water will I need to fill the bucket?

b) Find the cost of 4.5kg of sugar at 50cents per 500g.

c) Ben was going to an island. He travelled 150km by car, 50km by bus and 3250km by plane. How far was it from his house?

d) The bus arrives at the town centre at 10.30, at the market at 12.00, the library at 14.00 and the museum at 16.05. How long does it take to get from the market to the museum?

**3. Money problems**

a) I had $10 and spent $5.50. How much do I have left over?

b) David is saving up to buy a bicycle which costs $100. He earned $15 from doing jobs and was given $30 for his birthday. How much more money does he have to save?
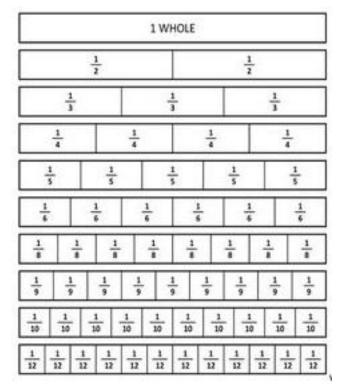
**Level 16 Card 7**

**1. Place value**

a) One thousand less than 476,000 = □

b) One hundred more than 29,674 = □

c) The first odd number after 400,000 = □

d) The first even number after 600,000 = □

e) One thousand less than 600,000 = □

**2. Addition in your head**

a) 45,142 + 200 = □

b) 126,000 + 2000 = □

c) 984 + 100 = □

**3. Subtraction in your head**

a) 875 – 50 = □

b) 246 – 7 = □

c) 1,928 – 300 = □

**4. Practical problems**

a) Peter has saved $4 in his money box. His Mum gives him $5 for helping at home. He spends $7.50. How much does he have left?

b) Kali wants to buy a pair of shoes that cost $27. She has $5.60 in her money box. Then she earns $15 for baby-sitting. How much more does she need to buy the shoes?

c) A plank measures 1metre 50centimetres. I cut off two-fifths of the plank. How long is the plank now?

d) There are 12 pieces of fruit. One quarter are apples and one third are bananas. How many of each type?

**Level 16 Card 8**

**Fractions**



Less than **<** or greater than **>** or equal **=**

1. Five sixths □ seven eighths
2. Five tenths □ six twelfths
3. Two thirds □ one quarter
4. Five eighths □ three quarters
5. Three ninths □ two fifths

**Level 16 Card 9**

**1. Place value:** In the number 47,926 what is the value
a) of the 6
b) of the 79
c) of the 92
d) of the 47

**1. Subtraction**
a) Find the difference between 1,345 and 258
b) Find the difference between 2,360 and 292
c) How much bigger is 1,782 than 594
d) Subtract 154 from 1,220
e) Subtract 375 from 1,461

**2. Division**
a) $35 \div 5 = (30 \div 5) + (5 \div 5) = \square$
b) $66 \div 6 = (60 \div 6) + (6 \div 6) = \square$
c) $48 \div 4 = (40 \div 4) + (8 \div 4) = \square$

**3. Problem solving**
a) Peter went swimming. Each length of the pool was 50m long. He swam 6 lengths. How many lengths more does he have to swim so that he has swum 500m in total?
b) I have 10 metres of material. I need to cut lengths of 30 centimetres. How many complete lengths can I cut? How much will be left over?

**Level 16 Card 10**

**1. Place Value**

26,795
$= (2 \text{ x } \underline{\quad}) + (79 \text{ x } \underline{\quad}) + (7 \text{ x } \underline{\quad}) + 9 \text{ x } \underline{\quad}) + 5 \text{ x } \underline{\quad})$
$= 26 \text{ x } \underline{\quad}) + 7 \text{ x } \underline{\quad}) + 5 \text{ x } \underline{\quad})$
$= (267 \text{ x } \underline{\quad}) \_ (9 \text{ x } \underline{\quad}) + (5 \text{ x } \underline{\quad})$
$= 2 \text{ x } \underline{\quad}) + (679 \text{ x } \underline{\quad}) + (5 \text{ x } \underline{\quad})$
$= (2 \text{ x } \underline{\quad}) + (67 \text{ x } \underline{\quad}) + (95 \text{ x } \underline{\quad})$

**2. Subtraction**
a) How much smaller is 361 than 1,750
b) How much smaller is 218 than 1,409?
c) Decrease 45,000 by 7,000.

**3. Addition**
a) 82,709 plus 32,246
b) 90,000 more than 3,210
c) Find the sum of 76,498 and 27,397

**4. Multiplication**
a) 294 x 7
b) 439 x 8
c) 796 x 9

**5. Problem solving**
a) My Mum is 46 and my Dad is 48 years old. If I was born in If I was born in 2004, how old will I be next year?
b) David is 20cm taller than Sanjay. Sanjay is 15cm shorter than Alan. Alan is 1m 15cm tall. How tall is David? How tall is Sanjay?

**Level 16 card 11**

**1. Write in words:**
a) 48,209
b) 25,027
c) 189,270

**2. Serial addition**
a) 6 + 8 = □    16 + 8 = □    96 + 8 = □
b) 5 + 7 = □    15 + 7 = □    85 + 7 = □
c) 4 + 9 = □    14 + 9 = □    64 + 9 = □

**3. Serial subtraction**
a) 13 – 7 = □    23 – 7 = □    923 – 7 = □
b) 19 – 11 = □    59 – 11 = □    359 – 11 = □
c) 16 – 8 = □    36 – 8 = □    236 – 8 = □

**4. Problems solving with money**
a) You have $7.65. Your friend has $3.75. How much more do you have then your friend?
b) You started with $8.45. You bought a game worth $5.40. How much money do you have left?
c) Subtract $1.65 from $4.50.

**5. Division**

$5\overline{)179}$         $8\overline{)212}$         $6\overline{)87}$

$5\overline{)86}$          $4\overline{)162}$         $8\overline{)228}$

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**Level 16 Card 12**

**1. Place Value**

64,379
= 60,309 + ___
= 4,300 + ___
= ___ + 4,070
= 4.009 + _____
= 60, 070 + ____

**2. Equations (use BOMDAS)**
a) 56 + (7 – 3) x 8 =
b) 245 – 20 + ½ of 32 =
c) ½ of 64 ÷ 8 + 18 =
d) 7 x 9 – 42 =

**3. Problem solving**

a) Dad needed 7m of wood to build some shelves. He already had 125cm of wood. How much more did he need to buy?

b) If a snail travels 3mm in 5 minutes, how far will it travel in half an hour?

c) The number 47 bus leaves the bus station at 16.20 and reaches Lami at 16.52. 24 people get on at the bus station. 17 people get off the bus and 8 get on at Lami. How many people will still be on the bus at 16.54?

**Level 16 Card 13**

**Fractions**

1. Complete this series: 4, 2, 1, ½ ____ , ____
2. Double ⅙
3. Halve ¼
4. Halve ⅓
5. Rename 5 by filling in the missing number: ½ of ____
6. Rename 4 by filling in the missing number: ⅔ of ____
7. ⅔ of 30
8. ⅗ of 15
9. Fill in the missing numbers:

$$\frac{2}{3} = \frac{}{6} \qquad\qquad \frac{1}{5} = \frac{}{10}$$

$$\frac{1}{4} = \frac{3}{} \qquad\qquad \frac{3}{4} = \frac{9}{}$$

**Decimal fractions**

10. Write ½ as a decimal fraction.
11. Write seven tenths as a decimal fraction
12. Write these decimal numbers as fractions:
    a) .6
    b) 1.4
    c) 2.8
13. Subtract $1.65 from $4.50
14. $5.55 + $2.90 =
15. $35.45 + $2.30 + 15 cents =

**Level 16 Card 14**

**Sets**

1. What is a set? It is a collection of things. If you can count the number of things in the set in is called a *finite* set. If the number of things in the set are too many to count, it is called an *infinite* set.

Say whether these are finite or infinite sets:

a) A carton of eggs     b) the stars in the sky

2. The number of things in a set is the *cardinal number*. For example: A set of pencils has 6 pencils of different colours: red, blue, yellow, green, white and black. Let's call this Set P. In mathematics we can show set P like this:

P = {red, blue, yellow, green, white, red}. It has 5 *elements*. It can also be written as n(P)= 5. (**n** stands for **n**umber. 5 is the *cardinal number*)

a) In a basket there are 6 pieces of **f**ruit: 2 apples, 1 banana, 3 mangoes. Write this in two ways:
   F = {2, ___, ___ }     or     n(F) = □
b) In a set of plastic **a**nimals there are 2 sheep, 3 dogs, 1 cat and 4 ducks. Write this in 2 ways:
   A= { ___, ___, ___, ___, }     or   n(A) = □
c) In a set of **c**lothes there are 2 socks, 3 shirts, 1 shorts and 1 jacket. Write this in 2 ways:
   C= { ___, ___, ___, ___, }     or   n(C) = □
d) In a kitchen set there are 2 pans, 3 bowls and 2 knives. What is the *cardinal number*?

**Level 16 Card 15**

**1. Subtraction**

a) $862.15     b) 62415     c) 90346     d) 60000

 - $348.02        - 5 658      - 2 918     - 16 742

  _____        _____      _____    _____

**2. Problem solving**

a) The price of a television is $1125 and a DVD player is $456. How much does Mrs Manoa have to pay if she has already paid $175 deposit?

b) Mrs. Prasad is 4 years younger than her husband. Her husband is 46 years old and Sam is 6 years younger than Mrs. Prasad. How old is Sam?

c) John is tall. Paul is taller but Ken is the tallest. Who is the shortest? Who is the tallest?

d) Jone's house is big, Freddy's house is two times bigger than Jone's and Romu's house is two times bigger than Freddy's. Who has the smallest house?

**3. Continue the pattern.**
a) 3, 7, 11, 15…
b) 5, 11, 17, 23…
c)15, 30, 45, 60…
d) 2, 20, 38, 56…

**Level 16 Card 16**

**1.  Measurement Facts**

10 millimetres = 1 centimetre 1000 millimetres = 1 metre

100 centimetres = 1 metre 1000 metres = 1 kilometre

a) 3 cm = □ mm    b) 7 m = □ cm      c) 4000 m = □ km

d) 5 km = □m        e) 70 mm = □ cm  f) 9 km = □ m

g) 600 cm = □ m    h) 3 m = □ mm    i) 1 000 mm = □ m

**2.  Order these units of lengths from shortest to longest.**

19cm        9m        250mm        20cm

3m        290cm        310 cm        2950mm

4000mm      401 cm      350cm      4000cm

**3. Measure the length of each line** to the nearest centimetre then millimetre.

a) _____

b) _____

c) _____

d) _____

e) _____

**Level 16 Card 17** Times tables x2, x5, x10, x3, x4, x6, x7, x8

**1. Associative law** means that the numbers on both sides of the equation stay the same and the equation is still true. Examples:

(i) 3 + (9+4) = (4 + 9) + 3

 (ii) 7 x (2 x3) = (7x 2) x 3

 Now complete these equations using the Associative law.

a) 6 + (8 +9) = (□ + □) + □        b) 4 x (3 x 4) =

c) 10 + (20 + 9) =        d) 9 x (5 x 2) =

e) 10 x (3 x 4) =        f) 19 + (10 + 15) =

**2. Distributive law**

Example: 3 × (2 + 4) = 3×2 + 3×4 = 18

You multiply everything inside the brackets by the 3 at the beginning of the equation.

Now try these:

a)  7 x (6 + 2) = □ x □ + □ x □ = □

b)  5 x (4 + 9) = □ x □ + □ x □ = □

c)  4 x (8 + 2) = □ x □ + □ x □ = □

d)  8 x (9 + 1) = □ x □ + □ x □ = □

e)  3 x (6 + 6) = □ x □ + □ x □ = □

f)  9 x (4 + 3) = □ x □ + □ x □ = □

**Level 16 Card 18 (Test)**

1. Write in words: 64,206
2. Write in figures: ninety thousand, one hundred and seven
3. What is the sum of 98,246, 3,792, 564 and 8?
4. 48,927 + 64,329 = □
5. Double 425.
6. Halve 942.
7. Subtract 468 from 840.
8. Find the difference between 935 and 328.
9. 8 – 4 = □   28 – 4 = □   548 – 4 = □
10. 85,421 = 80,401 + □
11.   98,410 + 220 = □
12. In the number 52,614, what is the value of:
a) The 5? b) the 26? c) the 61 d) the 4? *(¼ mark each)*

13.    8 | 228

14. 742 x 7
15. 429 + 17 + ½ of 48 = □ (Use BOMDAS)
16. $6.45 + $18.40 - $3.60
17. ⅔ of 66 = □
18. Half of ½ = □

19. Write $\frac{5}{10}$ as a decimal fraction.

20. I had $50.65 and spent $3.40. How much do I have left?