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## Year 3 Maths Number

 and Place Value
## Workbook - Answers



## Home Learning Year 3 Maths Workbook Pack

## Year 3 Programme of Study - Number and Place Value

| Statutory Requirements | Worksheet | Page Number | vNotes |
| :---: | :---: | :---: | :---: |
| Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number | Counting in 4s, 8 s , 50s and 100s worksheet. <br> 10 More 10 Less Worksheet <br> 100 More 100 Less Robots <br> Activity Sheets 1, 2 and 3 | 3-8 |  |
| Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) | Maths Magician Partitioning Worksheet Hundreds, Tens and Units <br> Hundreds and Ones Number Partitioning Worksheet | 9-12 |  |
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Counting in 4s, 8s, 50s and 100s

Complete the following sequences:
a) 4
$8 \quad 12 \quad 16 \quad 20 \quad 24$
f) $\underline{72} 64 \quad 56 \quad \underline{48} \quad 40 \quad 32$
b) $64 \quad 56 \quad \underline{48} \quad 40 \quad \underline{32} \quad 24$
g) $350 \quad 400 \quad 450500 \quad 550600$
c) $50 \quad 100 \quad 150 \quad 200 \quad \underline{250 \quad 300}$
h) $1100 \underline{1000} 900800700600$
d) $900 \quad \underline{800} \quad 700 \quad 600 \quad 500400$
e) $56 \quad \underline{60 \quad 64 \quad 68 \quad 72 \quad 76}$
i) $\begin{array}{llllll}92 & 88 & 84 & 80 & 76 & 72\end{array}$
ј) $80 \quad 88 \quad 96 \quad 104 \quad 112 \quad 120$

Continue the following sequences:
$\begin{array}{llllllllllllll}\text { k) } 4 & 8 & 12 & \frac{16}{2} & \frac{20}{40} & \frac{24}{48} & \frac{28}{56} & \frac{32}{64} & \frac{36}{72} & \frac{40}{80} & \frac{44}{88} & \frac{48}{96} & \frac{52}{104} & \frac{56}{112} \\ \text { D) } 8 & 16 & 24 & \frac{32}{4} & \frac{40}{4} & & & & & & & & & \end{array}$
m) $50100150 \quad 200 \underline{250} \underline{300} 350400 \quad 450 \quad 500 \quad 550 \underline{600} \underline{650} 700$
n) $100200300 \underline{400} 500 \underline{600} 700 \underline{800} \underline{900} 10001100 \underline{12001300} 1400$
o) $8084 \quad 88 \quad \underline{92} \quad \underline{96} \quad \underline{100} \underline{104} \underline{108} \underline{112} \underline{116} \underline{120} \underline{124} \underline{128} \underline{132}$
p) $125012001150 \underline{1100} \underline{1050} \underline{1000} 950900 \underline{850} \underline{800} \underline{750} \underline{700} \underline{650}$
q) $144136128 \underline{120} \underline{112} \underline{104}-96 \quad 88 \quad 80 \quad 72 \quad 64 \quad 56 \quad 48 \quad 40$
r) $150014001300 \underline{12001100} 1000 \underline{900} \underline{800} \underline{700} \underline{600} \underline{500} \underline{400} \underline{300}$
s) $124 \quad 120 \quad 116 \underline{112} \underline{108} \underline{104} \underline{100} \underline{96} \quad 92 \quad 88 \quad 84 \quad 80 \quad 76 \quad 72$


## Challenge

Explain the relationship between counting in 4 s and 8 s and compare this to the relationship between counting in 50s and 100s.

## 10 More and 10 Less Worksheet

Adding or subtracting 10 can be done by representing or imagining a number as hundreds, tens and units and simply adding or removing one of the tens e.g.

|  |  |  |
| :---: | :---: | :---: |
| $56-10=46$ | 56 | $56+10=66$ |

Sometimes you will make a new hundred or need to break a hundred down into tens to be able to do this. e.g.

| $94$ |  | $94+10=104$  $\frac{4}{2 \pi}$ <br> 10 lots of $10=100$ so a new 100 is made. |
| :---: | :---: | :---: |
| $102$ | $102-10$ <br> We need to work with 10 s so we break the hundred down into 10 lots of 10 . | $102-10=92$ <br> Then we can take one away. |

1. Try these. Draw the hundreds, tens and units if you wish.
2. $43-10=33$
3. $27+10=37$
4. $59-10=49$
5. $38+10=48$
6. $97+10=107$
7. $107-10=97$
8. $153+10=163$
9. $195+10=205$
10. Try these. Draw the hundreds, tens and units if you wish.
11. Can you fill in the missing numbers in these pieces snipped from number squares?

Don't forget you can have number squares that are bigger than 0-100
1.

2.

3.

7.

4.

8.

3. Look at the amounts these children have saved. How much would they have if they spent $£ 10$ or if they saved $£ 10$ more?
1.

| $-£ 10$ | $£ 37$ | $+£ 10$ |
| :--- | :--- | :--- |
|  |  |  |

4. 

| $£ 83$ | $£ 93$ | $£ 103$ |
| :--- | :--- | :--- |
|  |  |  |

2. 


5.

3.

| $£ 38$ | $£ 48$ | $£ 58$ |
| :--- | :--- | :--- |
|  |  |  |

6. 

| $£ 121$ | $£ 131$ | $£ 141$ |
| :--- | :--- | :--- |
|  |  |  |

7. 

| $£ 0$ | $£ 10$ | $£ 20$ |
| :--- | :--- | :--- |

8. 

| $£ 188$ | $£ 198$ | $£ 208$ |
| :--- | :--- | :--- |
|  |  |  |

Can you find 100 more than and 100 less than the number in the robot's tummy?
E.g.


Can you find 100 more than and 100 less than the number in the robot's tummy?
E.g.


Can you find 100 more than and 100 less than the number in the robot's tummy?
Egg.


Maths Magician Partitioning Worksheet Hundreds, Tens and Units


Can you put these numbers into hundreds, tens and units?

For example:

## $438=$



| $8+02$ | $+00 \angle=87 \angle$ <br> てし | $b+0 z+00 b=b / b$ |
| :---: | :---: | :---: |
| $7+0$ |  | $\varepsilon+09+00 z=\varepsilon \mid \Sigma$ |
|  | $b+0 b=b b$ | 00000 |
|  | $1+01=1 .$ | $9+0 \rightarrow+5$ |
|  | $\square+0 \varepsilon=\square \varepsilon$ | $2+02=2 L$ |
|  | $9+05=95$ | L $\mathrm{OH}=\mathrm{L}$ + |




ع 子әәчsมлом Gu!̣o!̣!̣лd ләqunn

## Ordering Numbers to 1000 Worksheet 1

Fill in the spaces below with the numbers in order from smallest to largest.



12






## Ordering Numbers to 1000 Worksheet 2

Fill in the spaces below with the numbers in order from smallest to largest.


202

$\overbrace{567}^{675} \overbrace{576}^{576} \overbrace{657}^{567} \overbrace{675}^{657}$


| $\frac{8 \downarrow+28 L}{8 G G+957}$ <br>  <br>  | $\begin{aligned} & 0 \varepsilon \varepsilon+8 \angle \varepsilon \\ & \varepsilon 9 \varsigma+0 \varsigma \downarrow \\ & 087+\varsigma \varepsilon 乙 \\ & 0 \angle 乙+7 \varepsilon \varsigma \end{aligned}$ <br> ¿OG $\angle$ noqn fo גamsud un aṇ 6 <br>  | ¿OOS łnoqn fo amsun up aṇ 6 <br>  | $\begin{gathered} 8 乙 乙+8 b \\ 9 l 乙+70 l \\ 8 b+0 b 乙 \\ +\square l+\angle \varepsilon 乙 \end{gathered}$ <br>  <br>  | $\begin{aligned} & S S+S \angle l \\ & L \varepsilon Z+9 Z \\ & L \varepsilon L+\varepsilon l \end{aligned}$ <br>  <br>  |
| :---: | :---: | :---: | :---: | :---: |
| ¿OLI nnoqo fo дамsud up aṇ！ 6 <br>  | $\frac{9 G L+レ \downarrow 乙}{\varepsilon \angle L+l 0 \varepsilon}$ <br> ¿OO† łnoqo fo дamsud un aņ 6 <br>  | $\begin{gathered} G \angle Z+G L \\ G \angle L+G O L \\ G L L+G O L \end{gathered}$ <br>  <br>  | $\begin{gathered} 09 l+07 l \\ 0 \angle+0 \varepsilon l \\ 08 l+09 \\ 09+0 乙 l \end{gathered}$ <br> ¿OOZ 子noq刀 fo дамsun un амп̣ 6 <br>  | $\begin{gathered} \varepsilon ゅ+G b \\ レ \vdash+G 乙 L \\ 9 L+\varepsilon 9 \\ \angle L+9 L \end{gathered}$ <br>  <br>  |
| $\begin{aligned} & 9 G+\varepsilon G \\ & \tau \varepsilon+8 b \\ & \frac{9 L+9 \downarrow}{\varepsilon 乙+\vdash 8} \end{aligned}$ <br> ¿OZし nnoqo fo дамsun up anı 6 <br>  | $\frac{\angle 9+57}{\angle L+28}$ <br>  suoוְøן | $\begin{aligned} & \angle 乙+G \varepsilon \\ & \tau \varepsilon+b 乙 \\ & \frac{G \varepsilon+\angle \hbar}{G Z+乙 L} \end{aligned}$ <br>  <br>  | $\begin{aligned} & b 乙+b \varepsilon \\ & \varepsilon G+\angle l \\ & 9 l+l \varepsilon \\ & \varepsilon \tau+\angle \varepsilon \end{aligned}$ <br> ¿09 дnoqд fo дамsud uд ала 6 <br>  | $\begin{aligned} & 8 l+\varsigma \downarrow \\ & l \varepsilon+8 乙 \\ & S \vdash+\varepsilon l \\ & L L+\vdash \varepsilon \end{aligned}$ <br> ¿OG anoqo fo ламsud ud an 6 <br>  |

## 

| ¿OOG mnoqo fo дamsud ud aņ 6 <br>  |  <br>  | $\begin{gathered} l 8 l-b S \vdash \\ 1 \varepsilon-89 乙 \\ S \dagger Z-\varepsilon \iota G \\ \hline 8 b-S \vdash \varepsilon \end{gathered}$ <br> ¿OGZ moqo fo дamsuo uv an！ 6 <br>  | $\begin{aligned} & \angle 9 Z-9 b 7 \\ & 0 \angle 9-9 \varepsilon 8 \\ & \frac{\text { beq-1ع7 }}{99 Z-067} \end{aligned}$ <br> ¿00Z moqd fo дамsud ud an 6 <br>  | ¿OSI mnoqd fo дamsud un an 6 <br>  |
| :---: | :---: | :---: | :---: | :---: |
| ¿OOL Inoqo fo ramsud uo ам！ 6 <br>  | ¿Ob znoqd fo дамsud ud әп！ 6 <br>  | $\begin{gathered} \text { OZZ-OOE } \\ \text { OGL-OZZ } \\ \text { OZL-GOZ } \\ \text { GL-OGL } \end{gathered}$ <br>  <br>  | $\begin{gathered} 091-00 Z \\ 0 \angle-0 \varepsilon l \\ 081-09 Z \\ 09-0 Z 1 \end{gathered}$ <br> ¿OL mnoqd fo дамsud ud aṇ 6 <br>  |  <br>  |
|  <br>  | $\frac{\angle L-9 \vdash}{9+-\angle 8} \frac{8 b-カ l l}{9 Z-\angle L}$ <br>  <br>  | $\begin{gathered} \angle \sqcap-9 L \\ 9 L-G L I \\ Z L-l \varepsilon \\ 7 G-Z b \end{gathered}$ <br>  <br>  | $\frac{\frac{\angle L-L \varepsilon}{9 L-\angle \varepsilon}}{b \tau-b \varepsilon}$ <br>  <br>  | $\begin{aligned} & \angle L-8 b \\ & Z L-\angle 乙 \\ & G \vdash-99 \\ & \varepsilon \varepsilon-\sqcap \varepsilon \end{aligned}$ <br> ¿OL nnoqd fo дамsud ud an！ 6 <br>  |

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| ¿OL子 $\ddagger$ noqn fo дamsun un an！ 6 <br>  | ```\psi\angle`&F+8L'&Э 01:97+09:17 09`ゅ子 + 0G`&子 O&`` + Oて`&\ni``` <br> ¿OG＇$\angle \exists$ дnogo fo дамsud uд амп！ 6 <br>  |  <br>  | $\angle 9.77+d 9 b$ $00 \vee 7+5 \varepsilon^{\prime} เ 子$ $d_{b}$ Z $+\varepsilon 子$ $9917+0 b^{\cdot} 1 \ni$  <br>  <br>  |  <br>  |
| :---: | :---: | :---: | :---: | :---: |
|  <br>  |  <br>  |  <br>  | $\frac{1 子+d_{0 Z}}{d_{0 L+d_{0 \varepsilon}}^{d_{07}+d_{0 G}}} \begin{gathered} d_{09}+d_{0 L} \end{gathered}$ <br>  <br>  | ¿dg $\angle$ znoqo fo дамsun un амп̣ 6 <br>  |
| $\begin{aligned} & d_{0 l+} d_{L \imath l}+d_{l l} \\ & d_{b}+d_{0 l} \\ & d_{\varepsilon \imath}+d_{8} \end{aligned}$ <br>  suoוְ̣סן | $\begin{aligned} & d_{8 l}+d_{l \emptyset} \\ & d_{9 \zeta}+d_{s \varepsilon} \\ & d_{8 乙}+d_{\emptyset l} \\ & d_{9 L+}+d_{L \zeta} \end{aligned}$ <br>  <br>  | $\begin{aligned} & d_{\angle 乙+d_{\emptyset l}} \\ & d_{l 乙}+d_{l \zeta} \\ & d_{\varsigma 乙}+d_{\iota 乙} \end{aligned}$ <br> ¿dot 子noqo fo дамsun un an！ 6 <br>  | $\begin{aligned} & d_{L l}+d_{\varepsilon 乙} \\ & d_{l 乙}+d_{b l} \\ & d_{\emptyset l}+d_{l 乙} \\ & d_{l l}+d_{L l} \end{aligned}$ <br>  <br>  | $\begin{aligned} & \frac{d 8 l+d_{C l}}{d_{b}+d_{G}} \\ & \frac{d_{G l}+d_{q}}{d_{L l}+d_{l l}} \end{aligned}$ <br> ¿doz 子noqo fo ıamsud ud an＠ suoו̣øן |


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## Estimate on 0-1000 Number Line Worksheet



## Estimate on Different Number Lines Worksheet



## Writing Numbers in Words

Write the following numbers in words:

| 243 | Two hundred and forty three |
| :---: | :---: |
| 562 | Five hundred and sixty two |
| 785 | Seven hundred and eighty five |
| 391 | Three hundred and ninety one |
| 669 | Six hundred and sixty nine |
| 402 | Four hundred and two |
| 513 | Five hundred and thirteen |
| 699 | Six hundred and ninety nine |
| 840 | Eight hundred and forty |
| 709 | Seven hundred and nine |
| 112 | One hundred and twelve |
| 590 | Five hundred and ninety |
| 519 | Five hundred and nineteen |
| 101 | One hundred and one |

## Writing Numbers in Words

Write the following words in numbers:

| Three hundred and forty six | 346 |
| :---: | :---: |
| Six hundred and thirty nine | 639 |
| Nine hundred and thirteen | 913 |
| Seven hundred and twenty eight | 728 |
| Four hundred and six | 406 |
| Nine hundred and thirty | 930 |
| One hundred and four | 104 |
| Five hundred and thirty five | 535 |
| Two hundred and twenty two | 222 |
| Four hundred and sixty | 460 |
| Eight hundred and seventy eight | 878 |
| Nine hundred and ninety one | 991 |
| One hundred and ninety nine | 199 |
| Five hundred and fifteen | 515 |

## Writing Numbers in Words

Write the following words into numbers and numbers into words.

| Five hundred and sixty one | 561 |
| :---: | :---: |
| Nine hundred and two | 902 |
| Two hundred and fourteen | 214 |
| Six hundred and fifty nine | 659 |
| Three hundred and twenty seven | 327 |
| Four hundred and twelve | 412 |
| Eight hundred and eight | 808 |
| Eight hundred and eighty | 880 |
| Six hundred and sixty | 660 |
| Six hundred and sixteen | 616 |
| Seven hundred and seventy nine | 779 |
| Three hundred and thirty seven | 337 |
| Eight hundred and nineteen | 819 |
| Seven hundred and forty | 740 |

## Estimation - Reading Speedometers

Estimation can be useful in real life situations. Be useful and apply your estimation skills to these situations.
Look at the speed limit signs and the speedometers. Is the driver going Too Fast! or Driving Safely? The first one is done for you.


## Estimation - Reading Speedometers

Estimation can be useful in real life situations. Be useful and apply your estimation skills to these situations.
Look at the speed limit signs and the speedometers. Is the driver going Too Fast! or Driving Safely? The first one is done for you.

| 1. 200 | $2 .$ | 3. | 4. 3600 |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  |  |  |
| Estimated Speed | Estimated Speed | Estimated Speed | Estimated Speed |
| 228 <br> Too Fast! | Driving safely | Driving safely | 9200 <br> Too Fast! |

## Solving Number Problems Using Number Representation

For each of the problems below, begin by representing the number in the place value chart then complete the calculation by adding or subtracting from the appropriate column.
E.g. The Jones family have 56 fish.

Represent 56 in the chart by using dots or base 10 bars.

| Hundreds | Tens | Units |
| :---: | :---: | :---: |
|  | $\bigcirc$ | $\bigcirc$ |
|  | $\bigcirc$ | $\bigcirc$ |
|  | $\bigcirc$ | $\bigcirc$ |

Then read the rest of the question and add or cross out the extra dots or bars needed.
They buy 10 more. How many do they have altogether?
Don't forget to make a new hundred if you have 10 dots or bars in the tens column.

1. 76 people have attended the School Summer Fayre. If 10 go home, how many are left?


| Hundreds | Tens | Units |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |


| Answer |
| :---: |
| 66 |

2. Raj has saved $£ 49$.

His grandmother gives him $£ 10$. How much does he have altogether?


| Answer |
| :---: |
| $£ 59$ |

3. Bilal collects stamps.

He has 326.
He buys a packet of 100 with his pocket money.


How many does he have

| Hundreds | Tens | Units |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |


| Answer |
| :---: |
| 426 | now?

## Solving Number Problems Using Number Representation

4. There are 97 guinea pigs in the zoo enclosure.

10 babies are born. How many are there altogether?


| Hundreds | Tens | Units |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |


| Answer |
| :---: |
| 107 |

5. Billy is playing a video game. He has scored 872 points.

He misses a jump and loses 100 points.

How many does he have


| Hundreds | Tens | Units |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |


| Answer |
| :---: |
| 772 | now?

6. Freya collects

103 conkers.
She gives 10 of them to a friend. How many does she have left?


| Hundreds | Tens | Units |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |


| Answer |
| :---: |
| 93 |

7. There are 372 children in the school.

When a nearby school closes, 110 more children join. How many pupils


| Hundreds | Tens | Units |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |


| Answer |
| :---: |
| 482 | are there now?

8. A shark has 295 teeth.

It loses 110. How many does it have left?

| Hundreds | Tens | Units |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |


| Answer |
| :---: |
| 185 |

