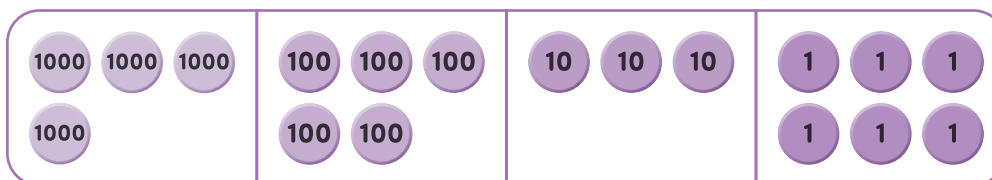


# Chapter 1 Numbers to 100 000

## Practice 1 Recall: Numbers to 10 000

1 Count and write the numbers.

(a)

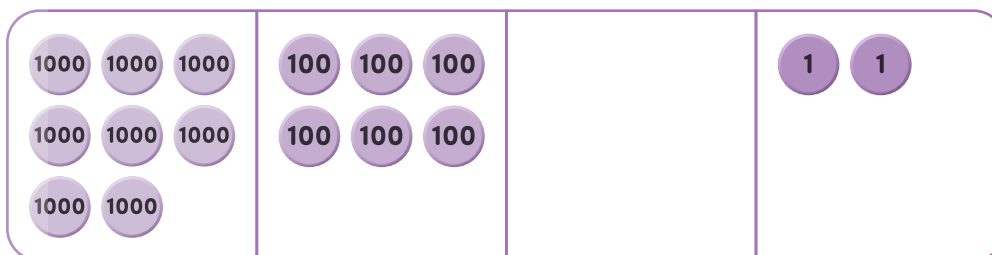


4 thousands 5 hundreds 3 tens 6 ones = 4536

$$4000 + 500 + 30 + 6 = 4536$$

The number is 4536.

(b)



8 thousands 6 hundreds 0 tens 2 ones = 8602

$$8000 + 600 + 0 + 2 = 8602$$

The number is 8602.

2 Write in numerals.

(a) Eight thousand and three

8003

(b) Five thousand, seven hundred and sixty-nine

5769

(c) Nine thousand, four hundred and five

9405

3 Write in words.

(a) 4120 Four thousand, one hundred and twenty

(b) 9064 Nine thousand and sixty-four

(c) 5238 Five thousand, two hundred and thirty-eight

4 Fill in the missing numbers.

(a)  $5735 = 5000 + \boxed{700} + 30 + 5$

(b)  $8012 = \boxed{8000} + 10 + 2$

(c)  $9516 = 9000 + 500 + \boxed{16}$

5 In 3428,

(a) the digit 4 is in the hundreds place.

(b) the digit 3 is in the thousands place.

(c) the digit 2 is in the tens place.

6 In 6149,

(a) the digit 4 stands for 40.

(b) the digit 1 has a value of 100.

(c) the digit 6 has a value of 6000.

(d) the digit 9 stands for 9 ones.

**Practice 2** Counting to 100 000

1 Write in numbers and in words.

**Example**

10 000

10 000

1 000

1 000

10

10

1

22 021

Twenty-two thousand and twenty-one

(a)

10 000

10 000

10 000

1 000

1 000

1 000

100

100

10

10

10

1

1

1

10 000

100

100

1

1

43 435

Forty-three thousand, four hundred and thirty-five

(b)

10 000

10 000

10 000

1 000

1 000

1 000

1

1

1

1 000

1 000

1 000

1

1

1

1

1

36 008

Thirty-six thousand and eight

(c)

10 000

10 000

10 000

1 000

1 000

1 000

100

10

10

10

1

1

1

10 000

10 000

1 000

1 000

1 000

10

10

10

1 000

10

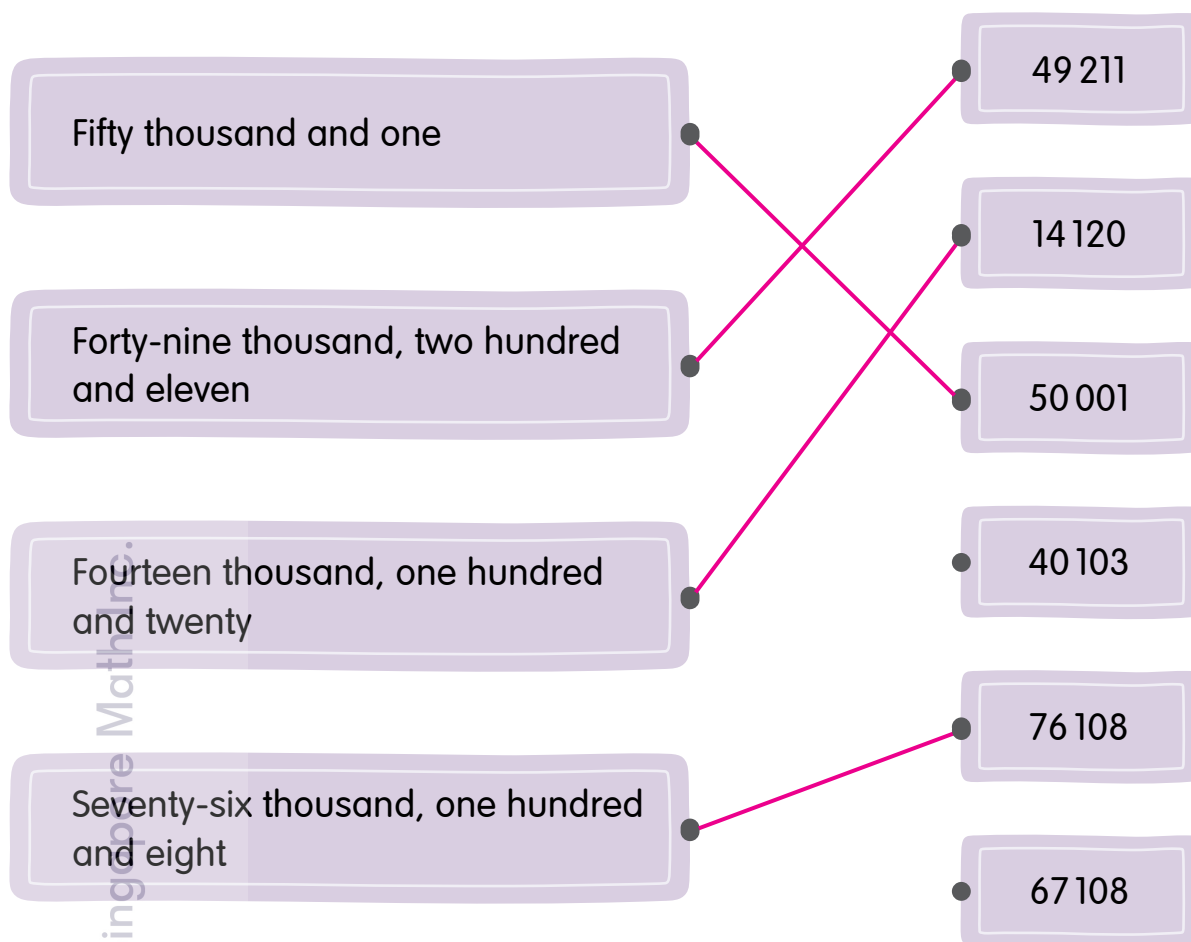
10

10

57 193

Fifty-seven thousand, one hundred and ninety-three

2 Match the following.



3 Write in numerals.

(a) Sixty-eight thousand, two hundred and thirty-two

68 232

(b) Twenty-nine thousand, four hundred and eight

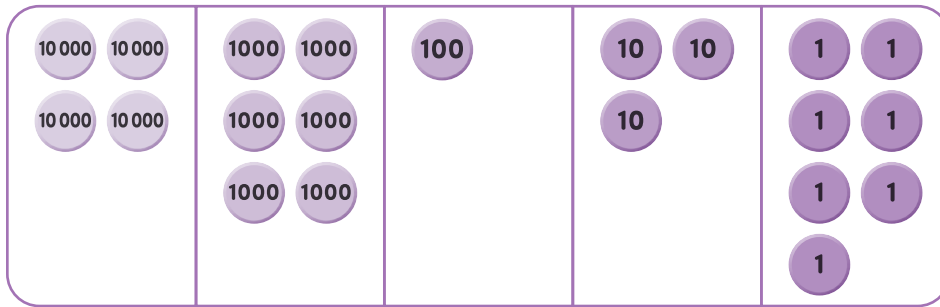
29 408

(c) Ninety-thousand and seventy-five

90 075

(d) Thirty-six thousand and sixteen

36 016

**Practice 3 Place Values****1** Fill in the missing numbers represented by the number discs.**(a)**

40 000

+

6000

+

100

+

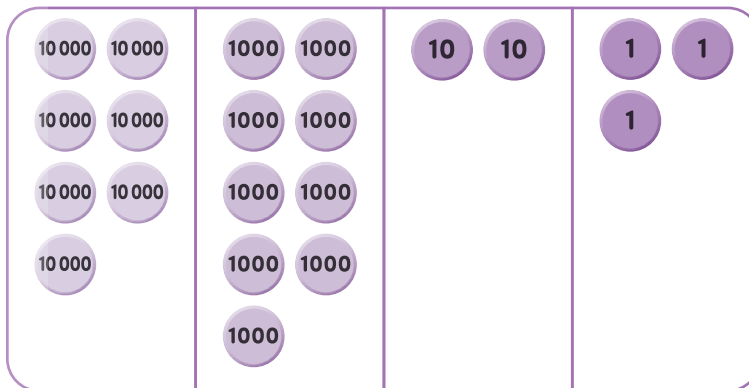
30

+

7

=

46 137

**(b)**

70 000

+

9000

+

20

+

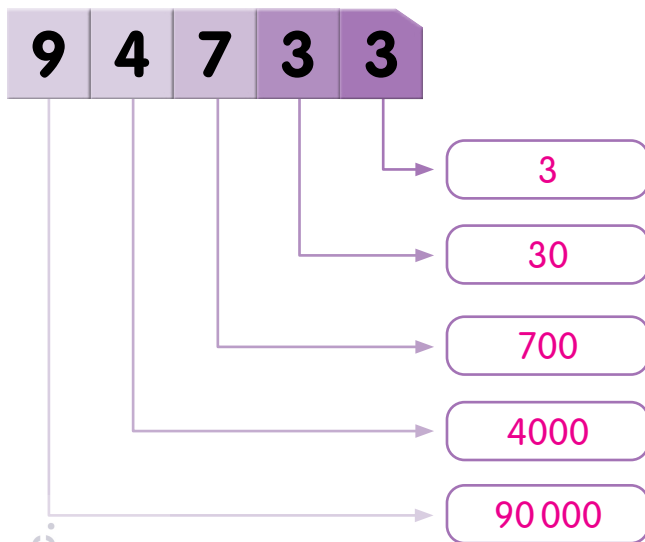
3

=

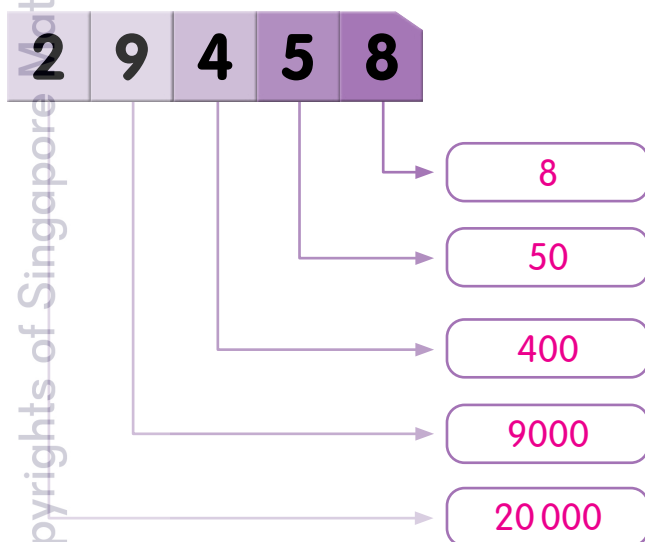
79 023

2 Write the value of each digit in the boxes.

(a)



(b)



3 In 70 253,  
the digit 3 stands for .

the digit 2 stands for .

the digit 7 has a value of .

the digit 5 has a value of .

4 In 56 789,

the digit 6 is in the **thousands** place.

the digit 8 is in the **tens** place.

the digit 5 is in the **ten thousands** place.

the digit 7 is in the **hundreds** place.

the digit 9 is in the **ones** place.

5 In 49 286,

the digit **9** is in the thousands place.

the digit **6** is in the ones place.

the digit **8** has a value of 80.

the digit **4** has a value of 40 000.

6 Fill in the missing numbers.

(a)  $63\,274 = 60\,000 + 3000 + \mathbf{200} + 70 + 4$

(b)  $89\,127 = \mathbf{80\,000} + 9000 + 100 + 20 + 7$

(c)  $51\,333 = 50\,000 + 1000 + \mathbf{333}$

(d)  $\mathbf{13\,000} + 275 = 13\,275$

- 7 Form different 5-digit numbers based on the clues given.  
Use each digit once only.



Clue 1:

The digits in the ten thousands place and thousands place are odd numbers.

Clue 2:

The digit 0 is in the hundreds place.

The possible 5-digit numbers are:

95 026

,

95 062

,

59 026

,

59 062

**Practice 4 Recall: Comparing and Ordering Numbers**

- 1 Circle the greater number.

(a) 2057 or 2075

(b) 3147 or 1373

- 2 Compare the three numbers.

Which number is the smallest? Which number is the greatest?

(a)

| Thousands | Hundreds | Tens | Ones |
|-----------|----------|------|------|
| 8         | 4        | 5    | 0    |
| 9         | 4        | 1    | 9    |
| 8         | 4        | 3    | 8    |

Smallest: 8438

Greatest: 9419

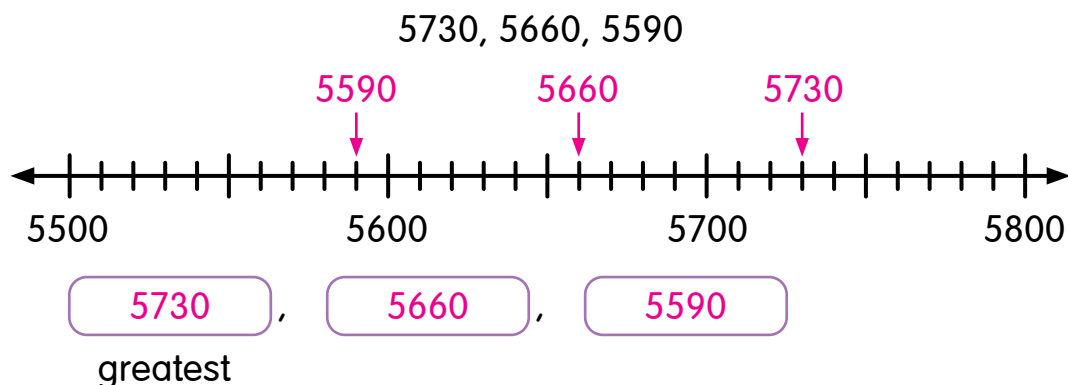
(b)

| Thousands | Hundreds | Tens | Ones |
|-----------|----------|------|------|
| 5         | 2        | 6    | 6    |
| 5         | 2        | 6    | 2    |
| 5         | 6        | 2    | 2    |

Smallest: 5262

Greatest: 5622

- 3 Mark the given numbers on the number line below.  
Then arrange the numbers from the greatest to the smallest.



- 4 Circle the greatest number. Underline the smallest number.

(a) 3048, 3059, 5120

(b) 7261, 7126, 7162

- 5 Arrange the following numbers in order.

(a) Begin with the smallest number.

5463, 5643, 5356, 5436

5356, 5436, 5463, 5643

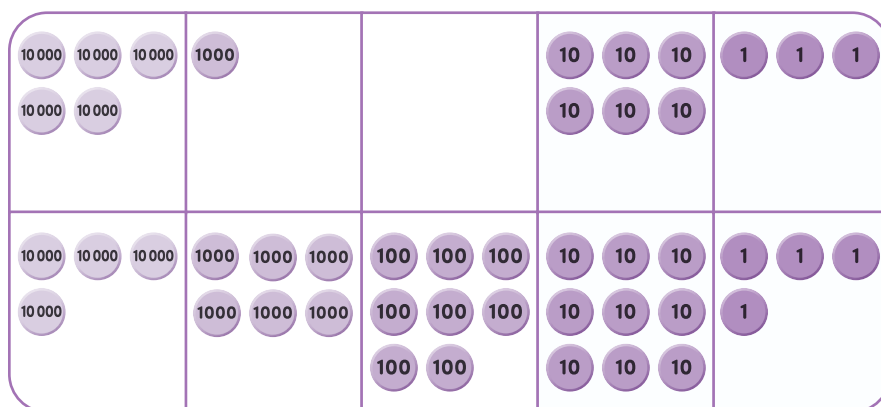
smallest

(b) Begin with the greatest number.

2060, 2610, 2006, 2100

2610, 2100, 2060, 2006

greatest

**Practice 5 Comparing and Ordering Numbers****1** Count and compare.**(a)**

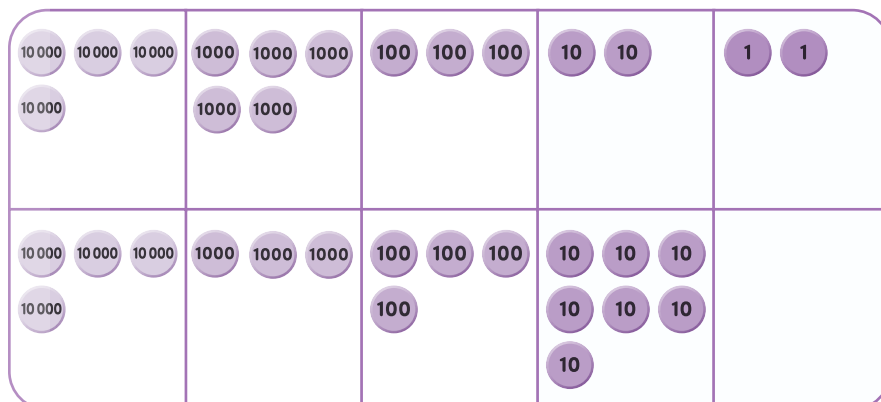
51 063

46 894

51 063

&gt;

46 894

**(b)**

45 322

43 470

43 470

&lt;

45 322



2 Compare the numbers and fill in the boxes.

(a)

| Ten Thousands | Thousands | Hundreds | Tens | Ones |
|---------------|-----------|----------|------|------|
| 5             | 0         | 2        | 7    | 3    |
| 4             | 5         | 1        | 9    | 8    |

50 273

>

45 198

(b)

| Ten Thousands | Thousands | Hundreds | Tens | Ones |
|---------------|-----------|----------|------|------|
| 6             | 7         | 0        | 0    | 0    |
| 6             | 7         | 9        | 4    | 2    |

67 942

>

67 000

(c)

| Ten Thousands | Thousands | Hundreds | Tens | Ones |
|---------------|-----------|----------|------|------|
| 7             | 3         | 4        | 0    | 6    |
| 7             | 3         | 0        | 6    | 4    |

73 064

<

73 406

(d)

| Ten Thousands | Thousands | Hundreds | Tens | Ones |
|---------------|-----------|----------|------|------|
| 8             | 5         | 9        | 3    | 8    |
| 8             | 5         | 9        | 4    | 6    |

85 938

<

85 946

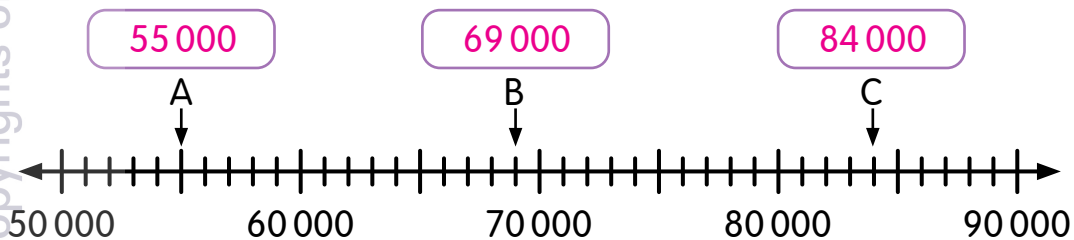
- 3 Compare and order the numbers.

| Ten Thousands | Thousands | Hundreds | Tens | Ones |
|---------------|-----------|----------|------|------|
| 9             | 3         | 7        | 1    | 4    |
| 9             | 3         | 8        | 0    | 0    |
| 6             | 9         | 2        | 8    | 7    |

- (a) Which number is the smallest? **69 287**
- (b) Which number is the greatest? **93 800**
- (c) Arrange these numbers in decreasing order.

**93 800** , **93 714** , **69 287**

- 4 Write and compare the numbers represented by A, B and C.  
Then arrange the numbers in increasing order.



**55 000** , **69 000** , **84 000**

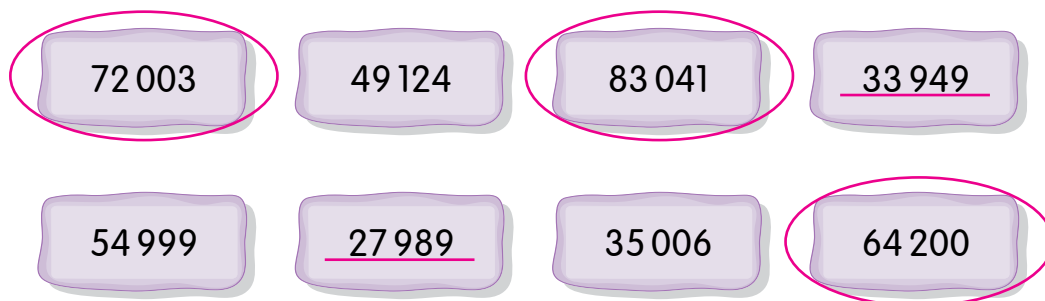
smallest

- 5 Arrange the numbers in decreasing order.

90 268, 90 286, 90 086, 98 086

**98 086, 90 286, 90 268, 90 086**

- 6 Circle the cards with numbers greater than 55 000.  
Underline the cards with numbers smaller than 35 000.



- 7 Based on the clues given, use all the digits below to form 5-digit numbers.  
Use each digit once only.



- (a) The greatest 5-digit even number is **98 762** .
- (b) The greatest 5-digit odd number is **98 627** .
- (c) The smallest 5-digit even number is **26 798** .
- (d) The smallest 5-digit odd number is **26 789** .
- (e) Arrange the 4 numbers in decreasing order.

**98 762** , **98 627** , **26 798** , **26 789**

**Practice 6** Number Patterns within 100 000

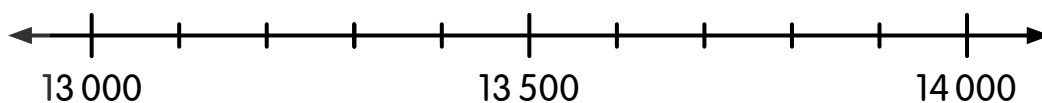
1 Complete the following.

| Ten Thousands | Thousands | Hundreds | Tens | Ones |
|---------------|-----------|----------|------|------|
| 3             | 4         | 7        | 8    | 5    |

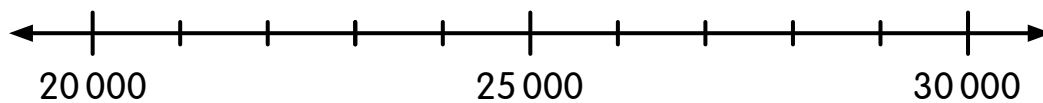
(a) 10 less than 34 785 is .(b) 100 more than 34 785 is .(c) 1000 less than 34 785 is .(d) 1000 more than 34 785 is .

2 Use the number lines to help you fill in the boxes.

(a)

 is 100 more than 13 500. is 100 less than 13 900.100 more than 13 200 is .

(b)



**22 000** is 1000 more than 21 000.

**27 000** is 1000 less than 28 000.

1000 less than 29 000 is **28 000**.

**3** Complete the following.

(a) 10 more than 23 585 is **23 595**.

(b) 1000 more than 40 670 is **41 670**.

(c) 100 less than 56 138 is **56 038**.

(d) **89 345** is 1000 less than 90 345.

(e) 21 605 is **100** more than 21 505.

(f) 73 600 is 1000 less than **74 600**.

(g) 92 468 is **1000** more than 91 468.

- 4 Fill in the missing numbers to complete the number patterns.

(a) 12 468, 12 458, 12 448, 12 438, **12 428**, **12 418**

(b) **21 836**, 21 736, 21 636, 21 536, 21 436, **21 336**

(c) **97 522**, **97 422**, 97 322, 97 222, 97 122, 97 022

- 5 Write the rule to find the next number in the number patterns.

**Example**

40 186, 40 196, 40 206, 40 216, 40 226

Rule: Add 10 to find the next number.

(a) 54 365, 53 365, 52 365, 51 365, 50 365

Rule: Subtract 1000 to find the next number.

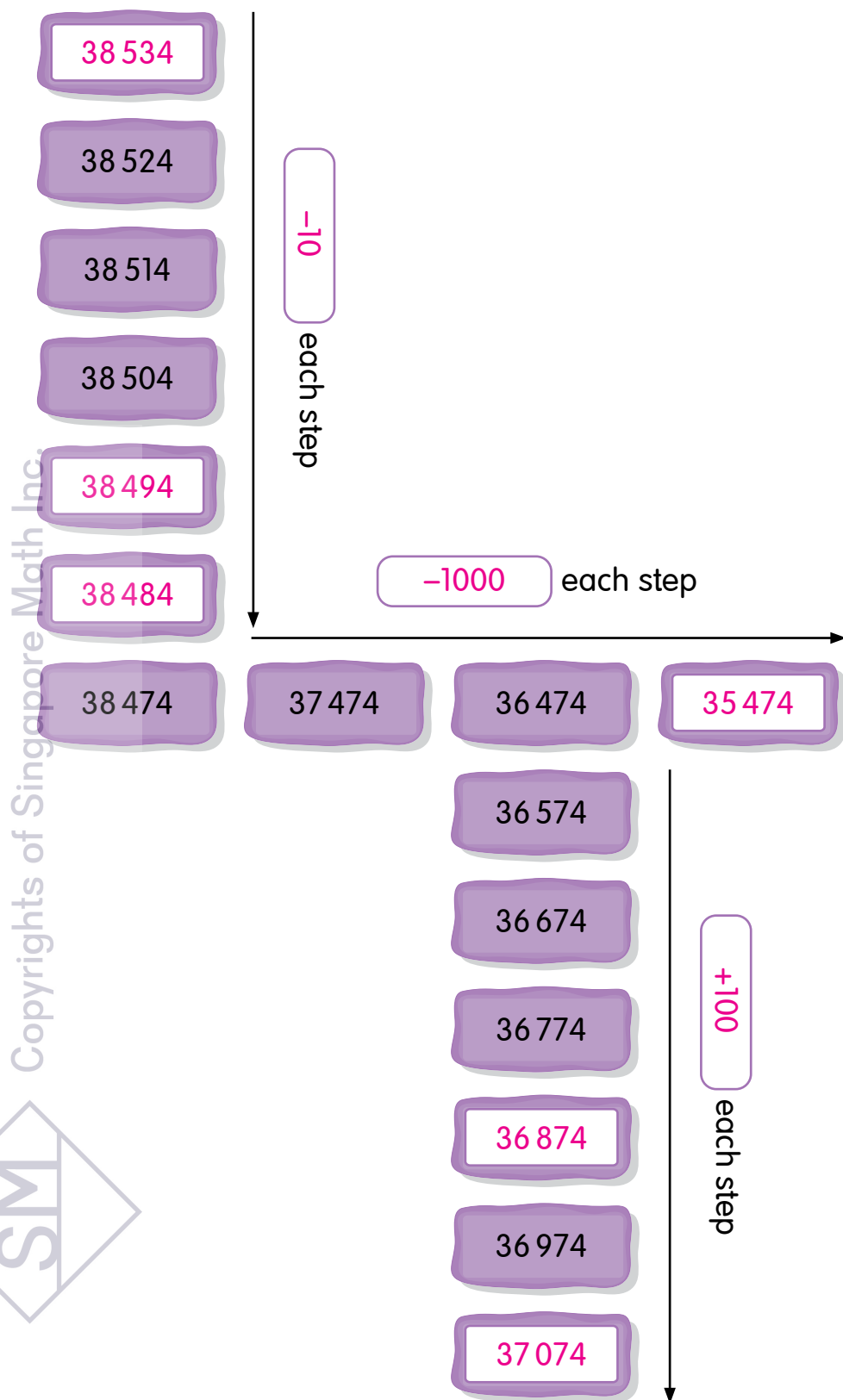
(b) 62 180, 63 180, 64 180, 65 180, 66 180

Rule: Add 1000 to find the next number.

(c) 90 165, 90 065, 89 965, 89 865, 89 765

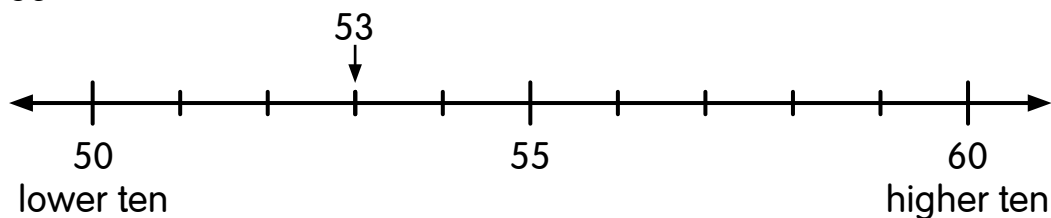
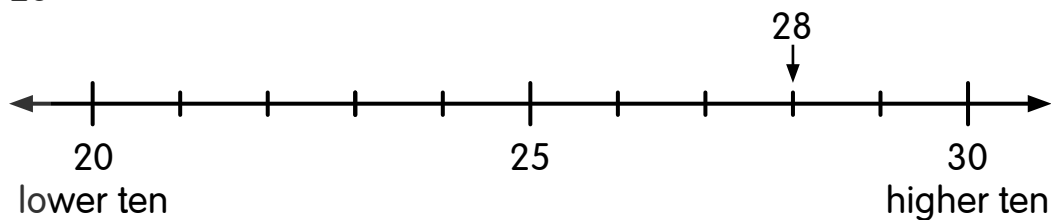
Rule: Subtract 100 to find the next number.

- 6 Find the rule for each number pattern and fill in the missing numbers.

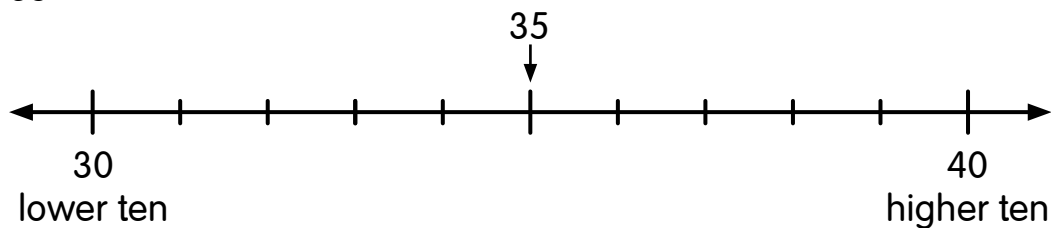


**Practice 7 Rounding Numbers to the Nearest Ten****1** Fill in the missing numbers.

Round each given number to the nearest ten.

**(a)** 5353 is between  and .53 is nearer to  than to .53  $\approx$  **(b)** 2828 is between  and .28 is nearer to  than to .28  $\approx$

(c) 35



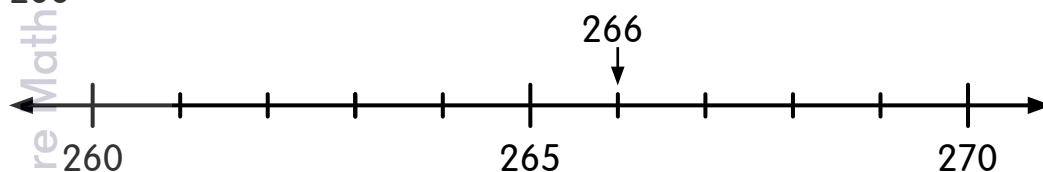
35 is the midpoint of  and .

35 rounded to the nearest ten is .

35  $\approx$

2 Fill in the missing numbers. Round each given number to the nearest ten.

(a) 266

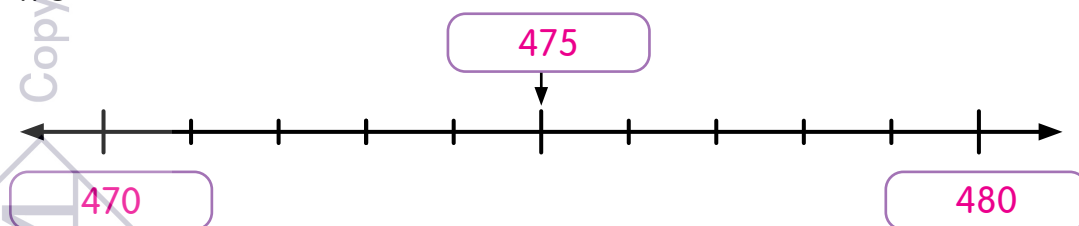


266 is nearer to  than to .

266 rounded to the nearest ten is .

266  $\approx$

(b) 475

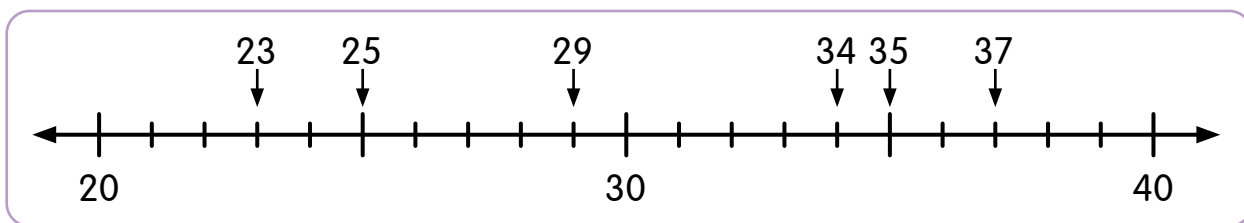


475 is the midpoint of  and .

475 rounded to the nearest ten is .

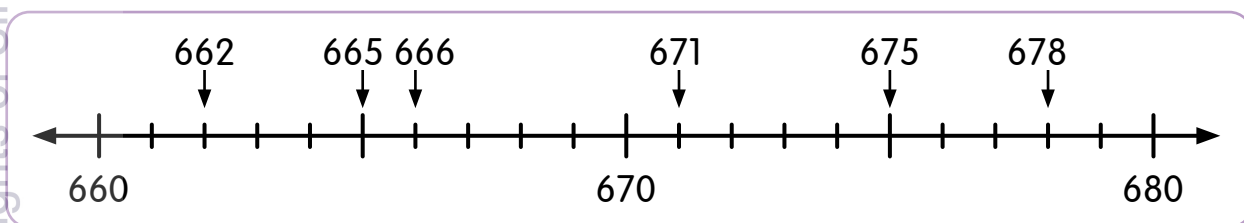
475  $\approx$

- 3 Round these numbers to the nearest ten.



| Number | Round to the nearest ten |
|--------|--------------------------|
| 23     | $23 \approx 20$          |
| 25     | $25 \approx 30$          |
| 29     | $29 \approx 30$          |
| 34     | $34 \approx 30$          |
| 35     | $35 \approx 40$          |
| 37     | $37 \approx 40$          |

- 4 Round these numbers to the nearest ten.



| Number | Round to the nearest ten |
|--------|--------------------------|
| 662    | $662 \approx 660$        |
| 665    | $665 \approx 670$        |
| 666    | $666 \approx 670$        |
| 671    | $671 \approx 670$        |
| 675    | $675 \approx 680$        |
| 678    | $678 \approx 680$        |

5 Round the following numbers to the nearest ten.

(a)  $17 \approx 20$

(b)  $42 \approx 40$

(c)  $65 \approx 70$

(d)  $54 \approx 50$

(e)  $78 \approx 80$

(f)  $99 \approx 100$

6 Round the following numbers to the nearest ten.

(a)  $103 \approx 100$

(b)  $353 \approx 350$

(c)  $274 \approx 270$

(d)  $688 \approx 690$

(e)  $4719 \approx 4720$

(f)  $62\,905 \approx 62\,910$

7 Round these amounts to the nearest \$10.



\$10



\$30



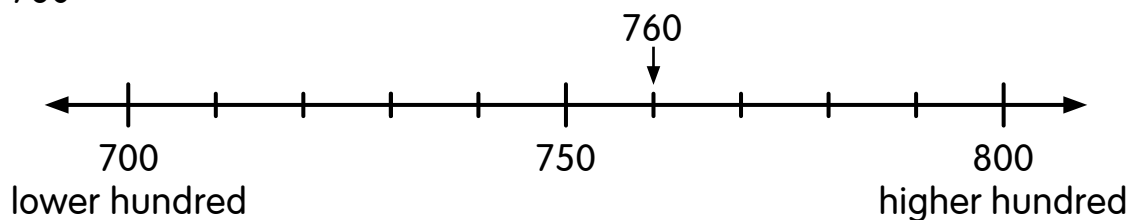
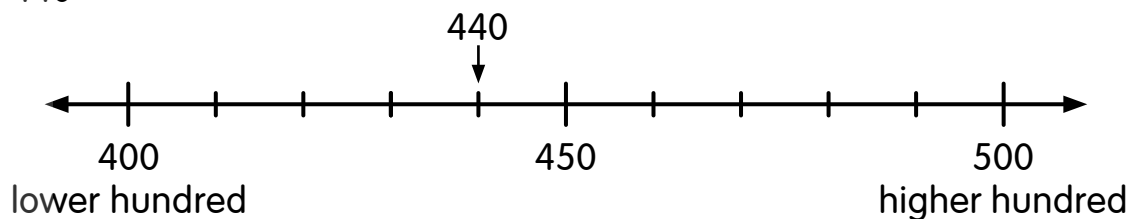
\$110



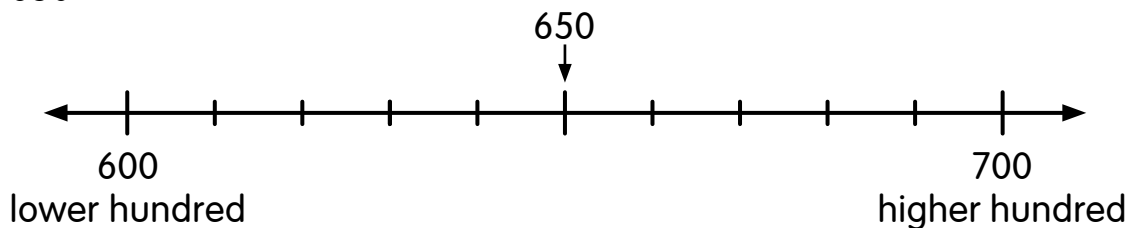
\$1800

**Practice 8 Rounding Numbers to the Nearest Hundred****1** Fill in the missing numbers.

Round each given number to the nearest hundred.

**(a)** 760760 is between  and .760 is nearer to  than to .760  $\approx$  **(b)** 440440 is between  and .440 is nearer to  than to .440  $\approx$

(c) 650



650 is between  and .

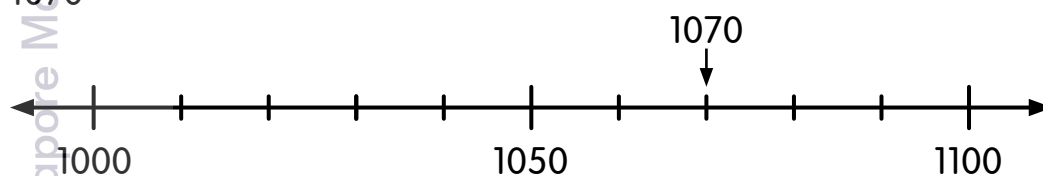
650 rounded to the nearest hundred is .

650  $\approx$

2 Fill in the missing numbers.

Round each given number to the nearest hundred.

(a) 1070

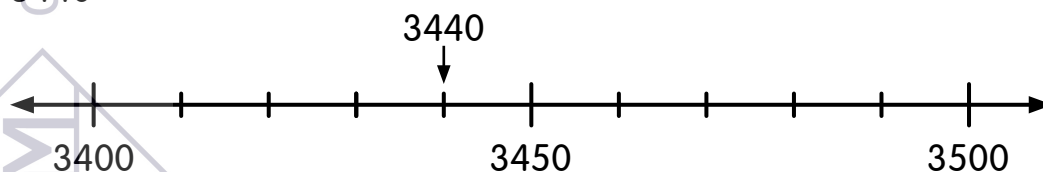


1070 is between  and .

1070 rounded to the nearest hundred is .

1070  $\approx$

(b) 3440

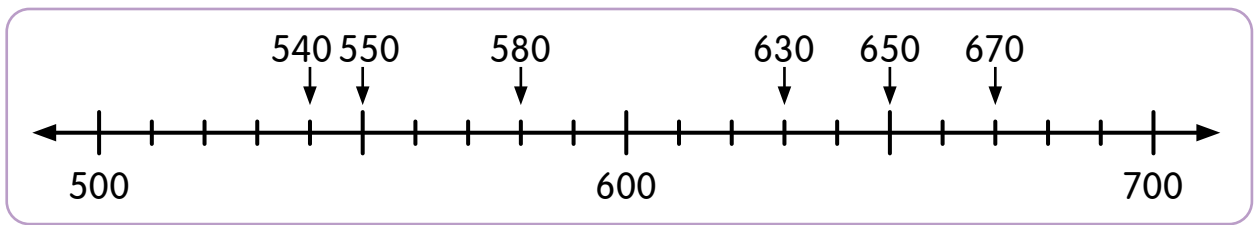


3440 is between  and .

3440 rounded to the nearest hundred is .

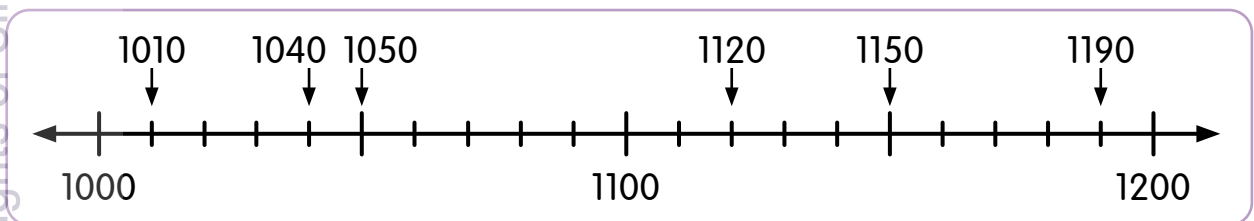
3440  $\approx$

- 3 Round these numbers to the nearest hundred.



| Number | Round to the nearest hundred |
|--------|------------------------------|
| 540    | $540 \approx 500$            |
| 550    | $550 \approx 600$            |
| 580    | $580 \approx 600$            |
| 630    | $630 \approx 600$            |
| 650    | $650 \approx 700$            |
| 670    | $670 \approx 700$            |

- 4 Round these numbers to the nearest hundred.



| Number | Round to the nearest hundred |
|--------|------------------------------|
| 1010   | $1010 \approx 1000$          |
| 1040   | $1040 \approx 1000$          |
| 1050   | $1050 \approx 1100$          |
| 1120   | $1120 \approx 1100$          |
| 1150   | $1150 \approx 1200$          |
| 1190   | $1190 \approx 1200$          |

5 Round the following numbers to the nearest hundred.

(a)  $320 \approx 300$

(b)  $461 \approx 500$

(c)  $789 \approx 800$

(d)  $508 \approx 500$

(e)  $849 \approx 800$

(f)  $985 \approx 1000$

6 Round the following numbers to the nearest hundred.

(a)  $2760 \approx 2800$

(b)  $3545 \approx 3500$

(c)  $1009 \approx 1000$

(d)  $6918 \approx 6900$

(e)  $15\,636 \approx 15\,600$

(f)  $54\,808 \approx 54\,800$

7 Round these amounts to the nearest \$100.

(a)



\$800

(b)



\$300

(c)



\$1100

(d)



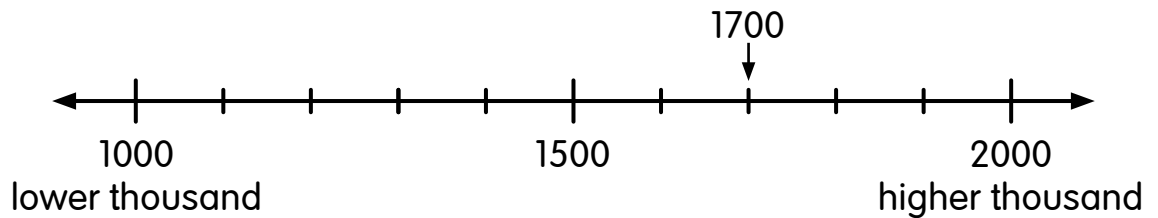
\$7000

**Practice 9 Rounding Numbers to the Nearest Thousand**

1 Fill in the missing numbers.

Round each given number to the nearest thousand.

(a) 1700

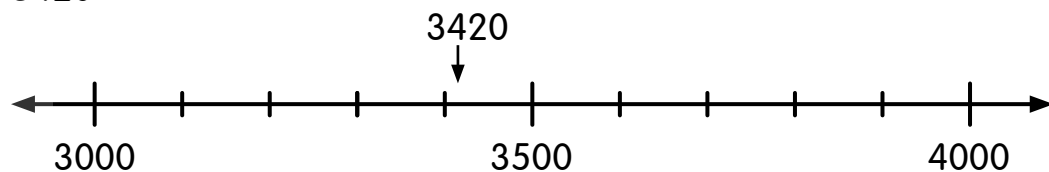


1700 is between  and .

1700 is nearer to  than to .

1700  $\approx$

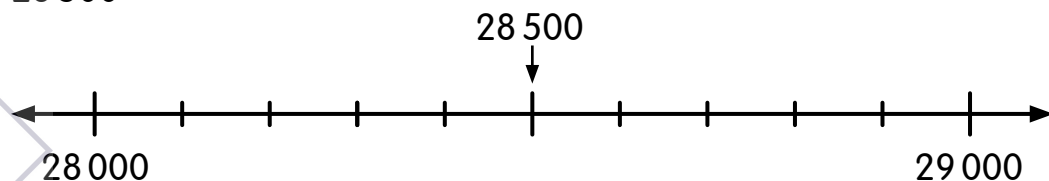
(b) 3420



3420 is nearer to  than to .

3420  $\approx$

(c) 28 500



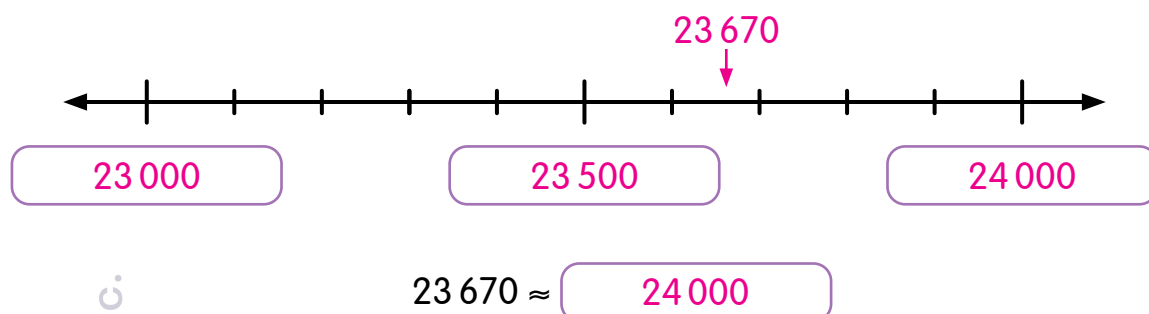
28 500 rounded to the nearest thousand is .

28 500  $\approx$

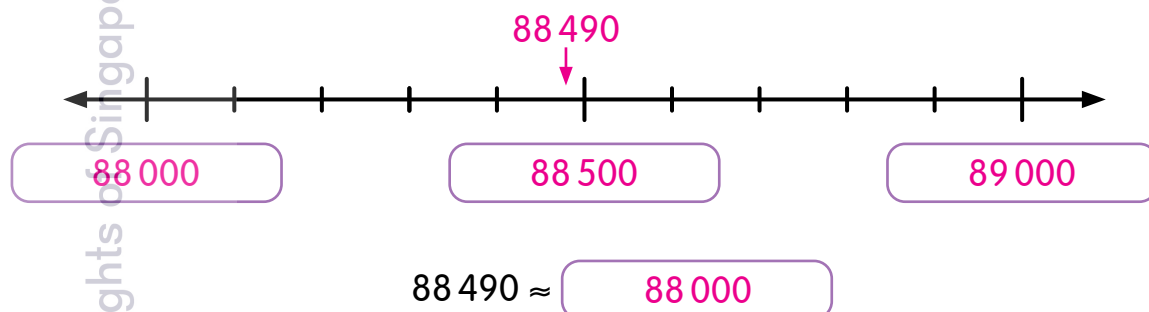
- 2 For each of the given numbers, write the lower thousand, midpoint and higher thousand in the boxes.

Mark the given number on the number line and round it to the nearest thousand.

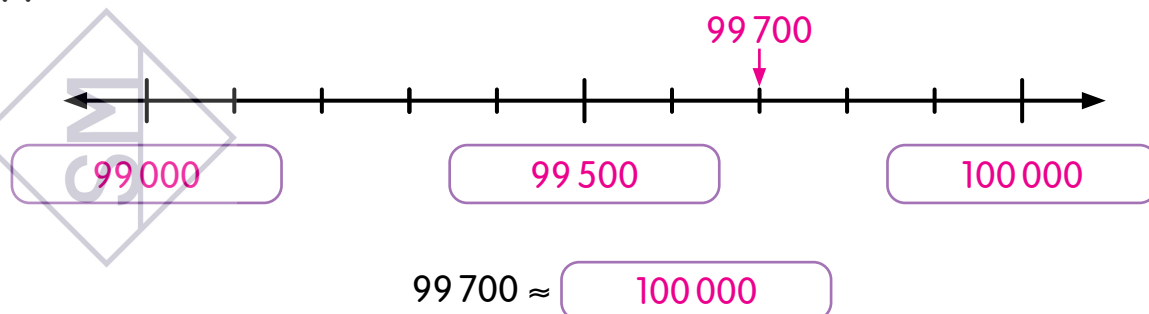
(a) 23 670



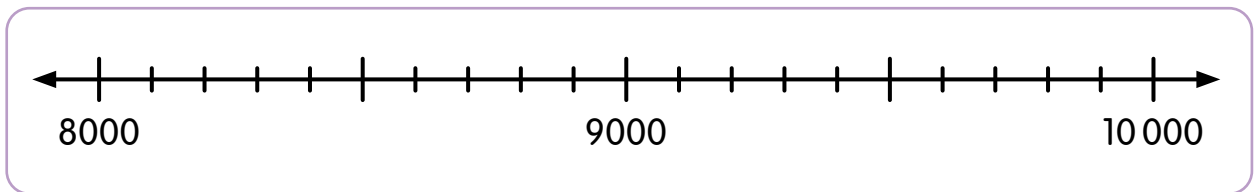
(b) 88 490



(c) 99 700



- 3 Round the numbers in the table to the nearest thousand.  
Use the number line to help you.



| Number | Round to the nearest thousand |
|--------|-------------------------------|
| 8300   | $8300 \approx 8000$           |
| 8800   | $8800 \approx 9000$           |
| 9400   | $9400 \approx 9000$           |
| 9500   | $9500 \approx 10\,000$        |
| 9900   | $9900 \approx 10\,000$        |

- 4 Round the following numbers to the nearest thousand.

(a)  $2300 \approx$

(b)  $3600 \approx$

(c)  $4450 \approx$

(d)  $7098 \approx$

(e)  $5365 \approx$

(f)  $8596 \approx$

5 Round the following numbers to the nearest thousand.

(a)  $22\,300 \approx 22\,000$

(b)  $39\,285 \approx 39\,000$

(c)  $55\,902 \approx 56\,000$

(d)  $72\,039 \approx 72\,000$

(e)  $80\,500 \approx 81\,000$

(f)  $99\,680 \approx 100\,000$

6 Round each amount to the nearest \$1000.

(a)



\$1000

(b)



\$99 000

**Problem Solving**

Use the numbers below to form 4-digit numbers that can be divided by 2 exactly (without remainder).

You may only use each digit once.



How many 4-digit numbers can be formed?  
Note that 0 cannot be the first digit.

| Begin with 3 | Begin with 5 | Begin with 2, end with 0 |
|--------------|--------------|--------------------------|
| 3250         | 5320         | 2350                     |
| 3520         | 5230         | 2530                     |
| 3052         | 5032         |                          |
| 3502         | 5302         |                          |

There are ten 4-digit numbers that can be formed.



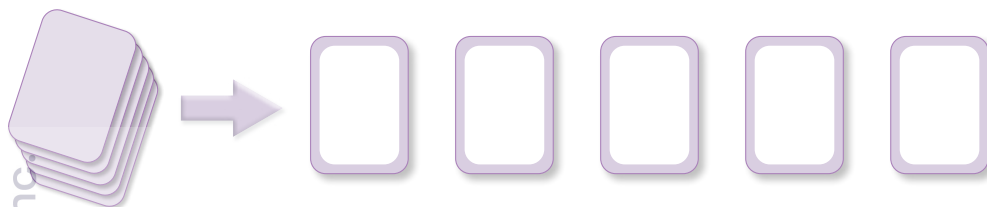
## Performance Task

**Activity:** Forming 5-digit numbers and rounding the numbers.

Work in groups.

Provide each group with a stack of numeral cards from 0 to 9.

- 1 Pick 5 cards and write the numerals in the boxes below.



- 2 Use the 5 cards to form:
  - (a) the greatest 5-digit even number,
  - (b) the smallest 5-digit even number,
  - (c) the greatest 5-digit odd number,
  - (d) the smallest 5-digit odd number.

Answers varies

Answers varies

Answers varies

Answers varies

Note that 0 cannot be the first digit.

- 3 Round each number in 2 to the nearest 10 and 100.

|     | To the nearest 10 | To the nearest 100 |
|-----|-------------------|--------------------|
| (a) | Answers varies    | Answers varies     |
| (b) | Answers varies    | Answers varies     |
| (c) | Answers varies    | Answers varies     |
| (d) | Answers varies    | Answers varies     |