

# GO

# MATHS

## Teacher Sourcebook

### Sample Unit



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## Using Place Value

### Content Outcomes

**NS 1.1** Counts, orders, reads and represents two- and three-digit numbers

### Mathematical Background

This unit extends the work with three-digit numbers to sequencing, comparing, ordering and rounding (or adjusting). Students use place value to create numbers and then learn to sequence numbers to increase or decrease by one in a particular place. Comparing and ordering are skills that rely on place value. Everyday contexts are used to provide a setting for the comparison activities and students are encouraged to explain the thinking they use to make decisions about which number is greater or lesser. A number line, a model more closely associated with the idea of relative position, is used to help students round numbers. Later, students will be encouraged to not only round the numbers but also give the distance to the closest ten or hundred.

### Lesson Overview

- 49.1** Building a Number
- 49.2** Sequencing Three-Digit Numbers
- 49.3** Comparing Three-Digit Numbers
- 49.4** Ordering Three-Digit Numbers
- 49.5** Adjusting Numbers

**Investigation:** Who can fit the greatest number of base-10 ones blocks into his or her shoe?

### Language

Students will use and develop the following language:  
more than, less than, greater, greatest, nearest, rounding, three-digit number

Sequence of related units for Stage 1

Stage 1A							Stage 1B				
NS 1.1	1	4	6	9	17	24	30	33	36	41	49

### Content Indicators

On completion of this unit, the students should be able to

NS 1.1

- A** read and write three-digit numbers
- B** sequence three-digit numbers (1 more or less, 10 more or less, 100 more or less)
- C** compare three-digit numbers
- D** order three-digit numbers
- E** locate three-digit numbers on a number line and identify the hundred that is closest

### Techniques

The following tools can be used to assess the content indicators.

#### 1. Investigation **A C**

The Investigation is located after Lesson 5.

#### 2. Written Test **A B C D E**

Allow time for the students to complete the written test for Unit 49. See page 17 of the *GO Check* assessment book. Consider administering the test one or two weeks after completion of the unit.

#### 3. Diagnostic Probe **B**

Write the number 264. Ask the student to tell you the number that is:

- 1 more
- 1 less
- 10 more
- 10 less
- 100 more
- 100 less

If successful, ask him or her the same questions for the number 519.

*GO Check*, page 17

**UNIT 49 Using Place Value**

**B A** 1. Complete these charts.

	+1	+10	+100
127	128	137	227
246			
473			
309			

	-1	-10	-100
219			
425			
360			
500			

**C A** 2. Write **is less than** or **is greater than** to make these true.

a. 376 \_\_\_\_\_ 285    b. 476 \_\_\_\_\_ 438  
 c. 715 \_\_\_\_\_ 750    d. 609 \_\_\_\_\_ 690

**D A** 3. Rewrite the scores from each scorecard to show greatest to least.

**a.**

GALAHS	334
KOOKABURRAS	316
COCKATOOS	341

1st    2nd    3rd

**b.**

TIGERS	450
PANTHERS	504
CHEETAHS	405
LIONS	540

1st    2nd    3rd    Last

**E A** 4. For each number, draw a line to show where it is on the number line. Write the **hundred** that is closest.

← 300                      400                      500 →

a. 348    b. 353    c. 389    d. 412    e. 465

Date \_\_\_\_\_    NS 1.1    *GO Check* Stage 1B, Unit 49    17

## Working Mathematically

The processes related to the working mathematically outcomes are embedded in all *GO Maths* activities. The following pointers should help you assess the students' demonstration of these processes.

<b>Questioning</b> (WMS 1.1)	<i>Listen</i> to the questions students pose when forming three-digit numbers from dice rolls (Consolidation 49.4). For example, 'What is the greatest number we could get?' 'How will we score if two of us get the same number?'
<b>Applying Strategies</b> (WMS 1.2)	<i>Observe</i> the strategies students use to round numbers to the nearest hundred: do they use numbers ending in 50 as reference points?
<b>Communicating</b> (WMS 1.3)	<i>Note</i> the language students use to compare three-digit numbers, e.g. more than, less than, close to.
<b>Reasoning</b> (WMS 1.4)	<i>Listen</i> as students explain how they know which number is greater when the number of hundreds is the same.
<b>Reflecting</b> (WMS 1.5)	<i>Listen</i> as students explain the practical uses of rounding, e.g. estimating a total involving several three-digit numbers.

## Recording

### Content

Record achievement of the content indicators in the box(es) for this unit alongside the relevant outcome(s) in the Progress Record. This can be found on page v of each student's *GO Check* assessment book. Alternatively, enter results into the *GO Chart Electronic Progress Record*.

Stage 1A								Stage 1B			
NS 1.1	1	4	6	9	17	24	30	33	36	41	49

### Working Mathematically

Record significant observations in the Progress Record on page vi of each student's *GO Check* assessment book. Alternatively, enter more detailed notes into the *GO Chart Electronic Progress Record*.

## Intervention

For students who need extra assistance, revisit the relevant parts of this unit or check for suitable activities from the Related Classroom Resources section in the back of this sourcebook.

## Building a Number

### Materials

- *GO Maths* student journal, page 74
- 30 cards (Blackline Master 9) for each group of students (*Note: These will be re-used in 49.3.*)
- Base-10 blocks
- Three-digit numeral expander (use Blackline Master 5)
- Non-permanent marker

### Optional

- 3 cubes **R** (for each group of students) with the following on the faces:
  - Cube 1: 4 hundreds, 5 hundreds, 6 hundreds, 7 hundreds, 8 hundreds, 9 hundreds
  - Cube 2: 3 tens, 4 tens, 5 tens, 6 tens, 7 tens, 8 tens
  - Cube 3: 1 one, 2 ones, 3 ones, 4 ones, 5 ones, 6 ones

### Daily Computation Practice

Write addition sentences using two-digit numbers (with or without bridging) on the board. Have the students copy and complete them.

### Consolidation

Have the students work in groups to repeat Step 4 of the activity in the lesson using the three marked cubes.

In this lesson, students use their understanding of place value to 'build' three-digit numbers.

### Daily Number Sense

Write the number sentence  $\_\_ + \_\_ = 30$  on the board. Ask: *What are pairs of numbers that make this number sentence true? How do you know?* Invite all of the students to write two or three number sentences. Then call on volunteers to write their sentences on the board and explain the thinking they used. Encourage them to describe how one number sentence could be used to work out the numbers for another sentence.

### Activity

1. Place the hundreds, tens and ones cards (except those with 0 or 1) in three separate stacks according to place value. Ask a volunteer to select one card from each stack and then ask three other individuals to hold up the base-10 blocks that match the amounts on the cards. Ask: *What number have we made with all of these blocks? What will we write?* Record the information the students suggest on the numeral expander and then write the number in words on the board.
2. Ask volunteers to select one card from each stack and record the amounts on the expander as each card is selected. Vary the order in which the volunteers select the cards. After each card is chosen, ask: *Where on the expander will we write this amount? How do you know?* As the students become confident, add in the cards with 0 or 1 and repeat the steps.
3. Now say: *I want someone to choose just two cards and everyone else to write the number.* Invite volunteers, with their backs to the class, to choose the cards and then reveal the amounts one at a time. Use the questions above to discuss where to write each amount.
4. Ask the students to move into groups and give each group a complete set of 30 cards. Each group selects a card from two or three stacks and then writes the number that describes the amount. Move around the groups to assist as required.
5. Have the students work independently to complete page 74 of the *GO Maths* student journal.

### Reflection

1. Discuss the students' answers to page 74 of the *GO Maths* student journal.
2. Draw three short lines on the board ( $\_\_ \_\_ \_\_$ ). Ask volunteers to select a card from each stack and describe where each number should be written.

## Sequencing Three-Digit Numbers

In this lesson, students roll a cube to progressively change a starting number by adding or subtracting 100, 10 or 1. During the activity, students describe the changes they make as they build the sequence.

### Daily Number Sense

Write the number sentence  $\underline{\quad} + \underline{\quad} = 70$  on the board. Repeat the Daily Number Sense discussion from the previous lesson.

### Activity

- Use base-10 blocks to show the number 328 and write the number on the board. Ask a volunteer to roll both cubes. Write what was rolled on the board and ask questions such as: *What part of 328 will you change to follow what was rolled on the cubes? How will you change the number? What will be the new number?* Encourage another student to describe the change and the new number and then write the new number on the board.
- Repeat Step 1 several times, writing the rolls from the cubes and the new number on the board in the format shown below.

328	+ 10
338	- 100
238	

- Repeat Steps 1 and 2 using the starting number 409.
- Write the number **425** on the board and ask students to roll the cubes to work out the new number. Encourage them to explain the thinking they used without relying on the base-10 blocks.
- Have the students work independently to complete page 75 of the *GO Maths* student journal. Hand out the blank cubes for the students to share.

### Reflection

Discuss the students' answers to page 75 of the *GO Maths* student journal. Ask questions such as: *What number did you write in the first box? (525, 435 or 426.) How did you get those numbers? Could anyone get 425 after the second roll? How would you get that answer? (Roll 100 on both rolls.)*

### Materials

- GO Maths* student journal, page 75
- Base-10 blocks
- 2 cubes  with the following on the faces:
  - Cube 1: +, +, +, -, -, -
  - Cube 2: 1, 1, 10, 10, 100, 100
- 1 blank cube  for each group of students

### Daily Computation Practice

Repeat the previous Daily Computation Practice activity.

### Consolidation

Have the students move into groups and continue to play the game, using the two marked cubes. Ask them to start with the number 555. The first player with three different digits wins the game.

# 49.3

## Comparing Three-Digit Numbers

### Materials

- *GO Maths* student journal, page 76
- *GO Figure* computation practice book, page 33
- Base-10 blocks

### Optional

- Hundreds, tens and ones cards from 49.1

### Daily Computation Practice

Have the students complete page 33 of the *GO Figure* computation practice book.

### Consolidation

Have students work in pairs using the hundreds, tens and ones cards to compare three-digit numbers. They each select a card from each place value and then decide who made the greater number. The player with the greater number scores one point.

In this lesson, students use place-value skills to compare two three-digit numbers. (Note: Kilometres are used as a context to compare numbers. This unit of length is not assessed until a later stage.)

### Daily Number Sense

Write the number sentence  $\_\_ + \_\_ = 65$  on the board. Repeat the Daily Number Sense discussion from 49.1.

### Activity

1. Write the following distances on the board:

<b>Sydney to Newcastle</b>	<b>172 km</b>
<b>Sydney to Canberra</b>	<b>285 km</b>
<b>Sydney to Batemans Bay</b>	<b>274 km</b>

2. Ask: *Is the trip to Newcastle or Canberra further? How do you know?* Invite two individuals to show each number using the base-10 blocks and discuss a variety of strategies. During the discussion, ask: *What part of each number helps you decide?* (The hundreds.) *Can we decide without looking at the tens and ones?* Have the students holding the blocks place the tens and ones out of view. On the board, write the sentence: **The distance from Sydney to Newcastle is less than the distance from Sydney to Canberra.**
3. Repeat Step 2 for Sydney to Newcastle and Sydney to Batemans Bay, then Sydney to Canberra and Sydney to Batemans Bay. For the last pair, bring out the fact that the students must look at the digits in the hundreds *and* tens places.
4. Write **Sydney to Bathurst 204 km** on the board and compare this distance to the other distances on the board. Encourage the students to explain their thinking without using base-10 blocks. Ask volunteers to place their hands over the digits they do not need to be able to decide which trip is greater.
5. Have the students work independently to complete page 76 of the *GO Maths* student journal.

### Reflection

Discuss the students' answers to page 76 of the *GO Maths* student journal. As the students describe their thinking, reinforce a strategy that begins by comparing the digits one place at a time, starting with the hundreds. During the discussion, ask questions such as: *Why isn't it a good idea to start in the ones place to decide which number is greater?*

# Ordering Three-Digit Numbers

# 49.4

In this lesson, students extend comparing to three or more numbers and place the numbers in order. They work with the language 'is less than' as well as 'is greater than'.

## Daily Number Sense

Write the number sentence  $\_\_ + \_\_ = 95$  on the board. Repeat the Daily Number Sense discussion from 49.1.

## Activity

1. Write **452**, **524** and **254** on the board and write the name of a class member above each number. Explain that these are the scores for a computer game. Ask: *Which score won the game? How do you know? Where will we start? What place will we look at first?* Invite the three students to hold up base-10 blocks to show their number with the amount in the hundreds place in a separate hand. Discuss which number has the greater hundred. Encourage the students to explain how they can decide by looking at the hundreds place.
2. Repeat Step 1 for **425**, **542** and **452** and then **368**, **386** and **380**.
3. Ask the students to move into pairs. Each pair rolls the three dice and writes the digits to form the greatest number they can. Then ask four pairs of students to write their numbers on the board. Encourage the other members of the class to describe the thinking they would use to put the four numbers in order from greatest to least without using base-10 blocks.
4. Repeat Step 3 as time allows.
5. Have the students work independently to complete page 77 of the *GO Maths* student journal.

## Reflection

Discuss the students' answers to page 77 of the *GO Maths* student journal. Ask questions such as: *Were there any scorecards where you could decide the answers by just looking at the digits in the hundreds place?* (No.) *Why not?* (If the digits are the same, it is necessary to look at the tens and possibly the ones places.) *Where did you need to look at the ones places to decide which number was greater?* (Question 2a for the Galahs' and Cockatoos' as well as the Kookaburras' and Emus' scores.)

## Materials

- *GO Maths* student journal, page 77
- Base-10 blocks
- 3 dice for each pair of students

## Optional

- Flash cards  showing these facts:

$12 - 5 = \_\_ \quad 13 - 8 = \_\_$

$17 - 9 = \_\_ \quad 16 - 7 = \_\_$

$12 - 7 = \_\_ \quad 11 - 7 = \_\_$

$14 - 9 = \_\_ \quad 15 - 8 = \_\_$

$13 - 5 = \_\_ \quad 14 - 6 = \_\_$

## Daily Computation Practice

Write the number facts on the board or use flash cards. Have the students write the answers.

## Consolidation

Ask the students to move into groups of three or four and have each roll three dice to form the greatest three-digit number they can and then write all of the group's numbers in order from greatest to least. The players score one point if they had the greatest number, two points if they had the second greatest number and so on. After five games, the player with the lowest total wins.

## Adjusting Numbers

### Materials

- *GO Maths* student journal, page 78
- *GO Figure* computation practice book, page 34

### Optional

- 3 dice for each group of students

### Daily Computation Practice

Have the students complete page 34 of the *GO Figure* computation practice book.

### Extension

Have the students move into groups. Ask each student to write the number 300 on a sheet of paper. The students then take turns to roll three dice and try to form a three-digit number they could round to 300. They score a point for each number they create that can be rounded to 300.

In this lesson, students use a number line to help them round three-digit numbers to the nearest hundred and then to the nearest ten.

### Daily Number Sense

Write the number sentence  $\_\_ + \_\_ = 85$  on the board. Repeat the Daily Number Sense discussion from 49.1.

### Activity

1. Draw a number line on the board and write the multiples of 100 from 0 to 600 on it. Briefly review that a number on the number line indicates a distance along the line from the start (0).
2. Write the number **385** above the number line and ask: *Where is this number on the number line? If you walk along the line, how far do you 'go'?* Invite volunteers to explain their thinking and act out walking along the line to the point they think matches. Draw a line to the point. Then ask: *What hundred is closest?* Students will use the position on the number line to decide visually. Confident individuals could be encouraged to explain how the value of 8 in the tens place makes 385 closest to the next hundred.
3. Repeat Step 2 for numbers such as **178, 421, 260** and **540**. For the last two examples, bring out the fact that the number 'halfway between' each hundred helps decide which hundred is closer. Invite individuals to say these numbers (50, 150, 250, 350, 450 and 550) and draw the marks without writing the numbers.
4. Have the students work independently to complete Questions 1 and 2 on page 78 of the *GO Maths* student journal.

### Reflection

1. Discuss the students' answers to Questions 1 and 2 on page 78 of the *GO Maths* student journal. Reinforce that numbers such as 250, 350, 550 and so on are used as reference points to help decide which hundred is closer.
2. Work as a whole class to complete Question 3. Ask questions such as: *What ten is just after 428 (just before 428)? How can you work out which ten is closer?* Encourage confident students to explain how they would use the value of the digit in the ones place to help them decide.
3. Discuss the practical uses of rounding, e.g. estimation of a total involving several three-digit numbers.

## Investigation

# Who can fit the greatest number of base-10 ones blocks into his or her shoe?

### Think

- How many base-10 ones do you think you will be able to fit into your shoe?
- How will you be able to work out whose shoe holds the most ones?
- What problems might you have while you are counting the ones?
- What are some ways that we can make counting faster and more accurate?

### Show and Do

Make an overhead transparency of this page. Reveal and read the Investigation question with the students. Encourage them to ask questions to clarify the task. If necessary, discuss the 'Think' prompts. You may want the students to work in groups of two or three.

### Observe

Was the student able to

- estimate the number of base-10 ones that might fit in his or her shoe?
- recognise that counting large numbers by ones is time consuming and potentially problematic?
- use larger multiples of a unit to make counting a large number of small units quicker and more accurate?
- read and write three-digit numbers?
- compare and order three-digit numbers?
- identify numbers that are 10 more or 100 more?

### Reflect

Ask each group of three students to identify whose shoe held the most base-10 ones and describe how they managed the count of the large number of small units. Focus on the efficiency of counting in larger amounts (multiples) of single units, especially tens, although it is possible some students will use twos or fives to complete this task.

Student Journal, page 74

49.1

### Using Place Value

Complete the missing parts of these mix-and-match puzzles.

**a.**

6 ones
7 hundreds
3 tens

7 hundreds 3 tens 6 ones

736

**b.**

1 ten
5 ones
3 hundreds

3 hundreds 1 ten 5 ones

315

**c.**

5 hundreds
7 ones

5 hundreds 0 tens 7 ones

507

**d.**

6 hundreds
2 tens

6 hundreds 2 tens 0 ones

620

**e.**

9 hundreds
3 tens

9 hundreds 3 tens 0 ones

930

**f.**

1 hundred
8 ones

1 hundred 0 tens 8 ones

108

74 Write different three-digit numbers using 6, 3 and 1. 60 Maths Stage 1B Unit 49.1

Student Journal, page 75

49.2

### Sequencing Three-Digit Numbers

Follow these steps to complete each number trail below.

- Write 1, 1, 10, 10, 100 and 100 on the faces of a blank cube.
- Roll the cube. Write the number in the first box.
- Repeat Step 2 for each box on the trail.
- Add or subtract to fill in the missing numbers in the stars.

**TRAIL A**

425  $+ 100$  525  $- 10$  515  $+ 1$  516  $+ 10$  526  $- 100$  426  $- 10$  416

**TRAIL B**

412  $+ 10$  422  $- 100$  322  $+ 1$  323  $+ 100$  423  $- 100$  323  $- 10$  313

Which trail finished with the greater score? **A**

75 Write a number between 100 and 200. Roll the cube 10 times and add the numbers you roll to the number you wrote down. 60 Maths Stage 1B Unit 49.2

Student Journal, page 76

49.3

### Comparing Three-Digit Numbers

Look at the distances on the map.

- Loop the distance that is greater.
  - Bathurst to Orange or **Newcastle to Singleton**
  - Orange to Dubbo or **Newcastle to Taree**
  - Newcastle to Sydney or **Sydney to Bateman's Bay**
- Write **is less than** or **is more than** to make these statements true.
  - Sydney to Bathurst **is less than** Singleton to Dubbo.
  - Newcastle to Taree **is less than** Newcastle to Sydney.
  - Newcastle to Sydney **is greater than** Orange to Dubbo.
- List all the distances that are between 60 km and 160 km.  
**Bathurst to Orange, Orange to Dubbo, Singleton to Newcastle**
- List the distances that are between 150 km and 250 km.  
**Newcastle to Sydney, Sydney to Bathurst**

76 List the distances in order from shortest to longest. 60 Maths Stage 1B Unit 49.3

Student Journal, page 77

49.4

### Ordering Three-Digit Numbers

- Rewrite the scores from each scorecard to show 1st, 2nd and 3rd place.
  - |           |     |
|-----------|-----|
| KANGAROOS | 379 |
| KOALAS    | 385 |
| WOMBATS   | 368 |

385 379 368  
1st 2nd 3rd
  - |          |     |
|----------|-----|
| LIONS    | 223 |
| TIGERS   | 218 |
| PANTHERS | 231 |

231 223 218  
1st 2nd 3rd
  - |           |     |
|-----------|-----|
| SHARKS    | 495 |
| EELS      | 517 |
| STINGRAYS | 509 |

517 509 495  
1st 2nd 3rd
  - |         |     |
|---------|-----|
| MAGPIES | 212 |
| FALCONS | 197 |
| EAGLES  | 206 |

212 206 197  
1st 2nd 3rd
- Rewrite the scores to show 1st, 2nd, 3rd and last place.
  - |             |     |
|-------------|-----|
| GALAHS      | 212 |
| KOOKABURRAS | 221 |
| COCKATOOS   | 210 |
| PEACOCKS    | 201 |
| EMUS        | 220 |

221 220 212 201  
1st 2nd 3rd Last
  - |            |     |
|------------|-----|
| CROCODILES | 890 |
| TOADS      | 908 |
| LIZARDS    | 809 |
| SNAKES     | 980 |
| FROGS      | 819 |

980 908 890 809  
1st 2nd 3rd Last

77 Write all the three-digit numbers you can using 2, 1 and 3. Rewrite the numbers in order from greatest to least. 60 Maths Stage 1B Unit 49.4

\* Answers will vary. This is one example.

Student Journal, page 78

49.5

### Rounding Three-Digit Numbers

1. For each number below

- draw a line to show where you think it is on the number line
- write the hundred that is closest

200                      300                      400

a. 234      b. 278      c. 319      d. 328      e. 385

200      300      300      300      400

2. Repeat the same steps for this number line.

500                      600                      700

a. 508      b. 549      c. 552      d. 654      e. 645

500      500      600      700      600

3. Draw a line and write the ten that is closest.

400                      450                      500

a. 428      b. 412      c. 447      d. 463      e. 486

430      410      450      460      490

78      Write 5 numbers you would round to 450.      GO Maths Stage 18 Unit 49.5

GO Figure, page 33

### CROSS NUMBER AGAIN!

Write the answer to each of these in the puzzle grid below.

**Across**

a.  $34 + 41$   
c.  $12 + 22$   
e.  $58 + 28$   
g.  $49 + 38$   
j.  $74 + 25$   
l.  $14 + 64$   
n.  $47 + 11$   
p.  $26 + 57$   
q.  $27 + 45$

**Down**

b.  $22 + 36$   
d.  $33 + 15$   
f.  $18 + 51$   
h.  $34 + 37$   
i.  $21 + 46$   
k.  $77 + 18$   
m.  $49 + 39$   
o.  $65 + 22$

a	7	b	5	c	3	d	4	
e	8	f	6		8	g	7	
h	6		9	k	9		1	
i	7	8		5	8			
j	8	3			7	2		

GO Figure Stage 18 Unit 49      ADDITION (USING PLACE VALUE) — 2-DIGIT NUMBERS      33

GO Figure, page 34

### YUM YUM

What tables are cooked and eaten?

Figure out each of these and rule a line to the correct answer.  
The line will pass through a letter. Write the letter below the answer.

4 - 3      6 - 4      15 - 6

13 - 5      10 - 4

12 - 8      14 - 9

16 - 9      11 - 8

5      7      9      4      3      6      2      8      1

VEGETABLES

13 - 6 = 7      15 - 8 = 7      18 - 9 = 9  
13 - 4 = 9      12 - 9 = 3      14 - 8 = 6  
11 - 6 = 5      14 - 7 = 7      15 - 9 = 6

34      SUBTRACTION (USING DOUBLES AND BRIDGE-TO-10) — FACTS      GO Figure Stage 18 Unit 49

GO Check, page 17

### UNIT 49 Using Place Value

1. Complete these charts.

	+1	+10	+100
127	128	137	227
246	247	256	346
473	474	483	573
309	310	319	409

	-1	-10	-100
219	218	209	119
425	424	415	325
360	359	350	260
500	499	490	400

2. Write **is less than** or **is greater than** to make these true.

a. 376 **is greater than** 285      b. 476 **is greater than** 438  
c. 715 **is less than** 750      d. 609 **is less than** 690

3. Rewrite the scores from each scorecard to show greatest to least.

a. GALAHS 334      KOOKABURRAS 316      COCKATOOS 341  
341      334      316  
1st      2nd      3rd

b. TIGERS 450      PANTHERS 504      CHEETAHS 405      LIONS 540  
540      504      450      405  
1st      2nd      3rd      Last

4. For each number, draw a line to show where it is on the number line.  
Write the **hundred** that is closest.

300                      400                      500

a. 348      b. 353      c. 389      d. 412      e. 465

300      400      400      400      500

Date \_\_\_\_\_      NS 1.1      GO Check Stage 18, Unit 49      17

# UNIT 49 Materials and Resources

## 49.1 Building a Number

### Materials

- *GO Maths* student journal, page 74
- 30 cards (Blackline Master 9) for each group of students
- Base-10 blocks
- Three-digit numeral expander (use Blackline Master 5)
- Non-permanent marker

### Optional

- 3 cubes **R** (for each group of students) with the following on the faces:
  - Cube 1: 4 hundreds, 5 hundreds, 6 hundreds, 7 hundreds, 8 hundreds, 9 hundreds
  - Cube 2: 3 tens, 4 tens, 5 tens, 6 tens, 7 tens, 8 tens
  - Cube 3: 1 one, 2 ones, 3 ones, 4 ones, 5 ones, 6 ones

## 49.2 Sequencing Three-Digit Numbers

### Materials

- *GO Maths* student journal, page 75
- Base-10 blocks
- 2 cubes **R** with the following on the faces:
  - Cube 1: +, +, +, -, -, -
  - Cube 2: 1, 1, 10, 10, 100, 100
- 1 blank cube **R** for each group of students

## 49.3 Comparing Three-Digit Numbers

### Materials

- *GO Maths* student journal, page 76
- *GO Figure* computation practice book, page 33
- Base-10 blocks

### Optional

- Hundreds, tens and ones cards from 49.1

## 49.4 Ordering Three-Digit Numbers

### Materials

- *GO Maths* student journal, page 77
- Base-10 blocks
- 3 dice for each pair of students

### Optional

- Flash cards  **Box of Facts: Subtraction Flash Cards** showing these facts:

$$\begin{array}{llll} 12 - 5 = \_\_\_ & 13 - 8 = \_\_\_ & 17 - 9 = \_\_\_ & 16 - 7 = \_\_\_ \\ 12 - 7 = \_\_\_ & 11 - 7 = \_\_\_ & 14 - 9 = \_\_\_ & 15 - 8 = \_\_\_ \\ 13 - 5 = \_\_\_ & 14 - 6 = \_\_\_ & & \end{array}$$

## 49.5 Adjusting Numbers

### Materials

- *GO Maths* student journal, page 78
- *GO Figure* computation practice book, page 34

### Optional

- 3 dice for each group of students

## Investigation

### Materials

- Overhead transparency of the Investigation question and 'Think' prompts
- Base-10 blocks