

Learning Notes

Children learn to write numbers in expanded form using words only, numbers only, and numbers and words.

Materials

- 3 dice for each child
- poster of the following math vocabulary chart

| Expanded Form | | | Standard Form |
|--|---|---|---------------|
| Words Only | Numbers & Words | Numbers Only | Standard |
| two hundred fifty three thousand, four hundred twelve | 2 hundred thousands 5 ten thousands 3 thousands 4 hundreds 1 ten 2 ones | 200,000 50,000 3,000 400 10 2 (or) 200,000 + 50,000 + 3,000 + 400 + 10 + 2 | 253,412 |

Teaching the Lesson

Before beginning the work sheets, ask the children for another way to write the number 27. Show the children that 27 is the same as 2 tens 7 ones *or* $20 + 7$ (or 27)

Have the children practice writing different 2-, 3-, 4-, and 5-digit numbers using the expanded form. Go over the work sheets with the children. Remind the children to refer to the chart for help if needed.

Learning Tip

Make a photocopy of the chart for each student to keep as a reference tool.

Using Expanded Form with Numbers

Numbers can be written in standard form or expanded form.

Standard Form



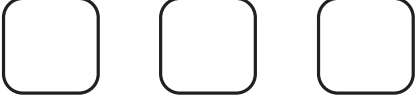
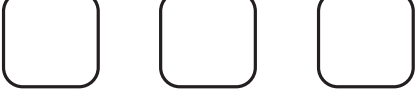




295

or

Expanded Form

200 + 90 + 5
(hundreds) (tens) (ones)

Roll three dice. Record the number that appears on top in both standard form and expanded form.

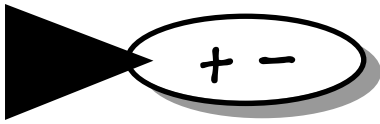
| | Numbers Rolled | Standard Form | Expanded Form |
|----|---|---------------|---------------|
| |  | 341 | 300 + 40 + 1 |
| 1. |  | | |
| 2. |  | | |
| 3. |  | | |
| 4. |  | | |
| 5. |  | | |
| 6. |  | | |
| 7. |  | | |

What was the smallest number made? _____

What was the largest number made? _____

Read the number in the written form. Then write the number in the expanded form and also in standard form.

| Written Form | Expanded Form | Standard Form |
|---|---------------------------------------|---------------|
| 1. three hundred forty-two thousand, two hundred ten | $300,000 + 40,000 + 2,000 + 200 + 10$ | 342,210 |
| 2. three hundred forty-five thousand, sixteen | | |
| 3. five hundred thirty thousand, two hundred one | | |
| 4. seven hundred fifty thousand, nine hundred eleven | | |
| 5. four hundred seventy-six thousand, eight hundred twenty | | |
| 6. one hundred thousand, four hundred thirty-seven | | |
| 7. eight hundred sixty-one thousand, one hundred ninety-two | | |



Answer Key

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- 59,899
- 12. Answers will vary.
- 222, 224, 226, 230
- 455, 460, 470, 475, 480
- 341, 361, 371, 381, 401
- 604, 644, 664, 684, 704

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Answers will vary.

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- $300,000 + 40,000 + 2,000 + 200 + 10$; 342,210
- $300,000 + 40,000 + 5,000 + 10 + 6$; 345,016
- $500,000 + 30,000 + 200 + 1$; 530,201
- $700,000 + 50,000 + 900 + 10 + 1$; 750,911
- $400,000 + 70,000 + 6,000 + 800 + 20$; 476,820
- $100,000 + 400 + 30 + 7$; 100,437
- $800,000 + 60,000 + 1,000 + 100 + 90 + 2$; 861,192

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- 6 hundreds + 2 tens + 3 ones
 - 5 thousands + 1 ten + 2 ones
 - 3 ten thousands + 9 hundreds + 6 tens + 8 ones
 - 2 hundreds + 8 ones
 - 7 ten thousands + 3 thousands + 9 hundreds + 9 tens + 7 ones
 - 8 thousands + 6 hundreds + 4 tens + 7 ones
 - 3 hundred thousands + 5 ten thousands + 6 thousands + 9 hundreds + 1 ten + 1 one
 - 4 hundred thousands + 1 ten thousand + 5 thousands + 8 hundreds + 2 tens + 7 ones
 - 4 hundreds + 4 tens + 2 ones
 - 6 thousands + 9 hundreds + 2 tens + 8 ones
- 208; 442; 623; 5,012; 6,928; 8,647;
30,968; 73,997; 356,911; 415,827

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- | | |
|----------------------------|---------|
| 1. eight tenths | 8. .29 |
| 2. one hundredth | 9. .07 |
| 3. nine tenths | 10. .81 |
| 4. six hundredths | 11. .4 |
| 5. seventy-five hundredths | 12. .05 |
| 6. forty-two hundredths | 13. .06 |
| 7. .3 | 14. .1 |

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- | | |
|----------|-----------|
| 1. 33.51 | 7. 23.32 |
| 2. 98.88 | 8. 95.78 |
| 3. 78.69 | 9. 87.88 |
| 4. 1.12 | 10. 40.85 |
| 5. 89.88 | 11. 98.82 |
| 6. 51.44 | 12. 69.89 |

- $\$14.10 + \$23.67 = \$37.77$
- $\$38.59 - \$25.06 = \$13.53$

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- | | |
|-----------|-----------|
| 1. 49.13 | 11. 87.77 |
| 2. 35.54 | 12. 15.91 |
| 3. 22.48 | 13. 34.88 |
| 4. 41.88 | 14. 78.60 |
| 5. 58.31 | 15. 95.81 |
| 6. 94.54 | 16. 12.71 |
| 7. 1.78 | 17. 20.04 |
| 8. 89.61 | 18. 36.85 |
| 9. 45.04 | 19. 36.19 |
| 10. 32.37 | 20. 64.62 |

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| | Daily Rate | Week end | Daily Rate | Week end | Daily Rate | Week end | Daily Rate | Week end | Daily Rate | Week end | Daily Rate | Week end |
|-------------|------------|----------------|----------------------|--------------|------------|--------------|------------|----------|------------|----------|------------|----------|
| \$301–\$350 | | | | | | | | | | | | |
| \$251–\$300 | | | | | | | | | | | | |
| \$201–\$250 | | | | | | | | | | | | |
| \$151–\$200 | | | | | | | | | | | | |
| \$101–\$150 | | | | | | | | | | | | |
| \$51–\$100 | | | | | | | | | | | | |
| \$0–\$50 | | | | | | | | | | | | |
| | Waterslide | Amusement Park | Safari Adventureland | Movie Studio | Wax Museum | Cartoon Land | | | | | | |

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- $\$71.65 - \$67.31 = \$4.34$
- $\$289.24 - \$175.88 = \$113.36$
- $\$151.78 - \$82.44 = \$69.34$
- $\$57.90 - \$32.99 = \$24.91$
- $\$281.37 - \$149.26 = \$132.11$
- $\$336.52 - \$221.70 = \$114.82$
- Wax Museum
- Waterslide
- $\$67.31 + \$221.70 = \$289.01$
- $\$32.99 + \$175.88 = \$208.87$
- Answers will vary.
- 1 place; Cartoon Land \$221.70

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- \$59.06
- \$55.15
- \$167.63
- \$272.74
- \$74.19
- \$135.28
- \$24.74
- \$41.40
- \$141.01
- \$264.87
- \$213.45
- \$320.02

- \$49.50
- \$99.00
- Answers will vary.
- new daily rates.

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- cross off 2,157; 80,121; 7,418; 102
- cross off 39,643; 29,253; 144,384
- cross off 879; 579
- cross off 66,175
- cross off 9,780
- 805,457
- Answers will vary.

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This is just one solution.

- 1st row: 340; 344; 351; 355
2nd row: 347; 343; 352; 348
3rd row: 349; 350; 345; 346
4th row: 354; 353; 342; 341

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- $3/6$
- $1/4$
- $2/4$
- $2/5$
- $3/8$
- The piece of pie becomes smaller.
- The pie is cut into more pieces.
- $1/2$
- $1/6$
- $1/2$
- $2/4$
- $3/6$
- $4/8$
- The fractions are the same.
- $1/3$
- $2/6$
- $3/9$
- $4/12$
- The fractions are the same.

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- .33
- .75
- .67
- .50
- .33
- .25
- .50
- .80
- .50
- .25
- .75
- .67
- .33
- .60
- .25