

Developing Conceptual Understanding of Number

Set C: Representing Numbers

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Representing Numbers 1

Vocabulary

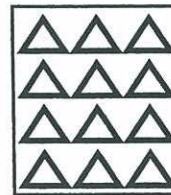
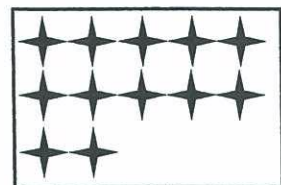
- represent
- symbols
- operations
- diagrams
- percent
- fraction

Notes

- For #1:
 - “deux” is the French word for 2
 - “niso” is the Cree word for 2
 - “douze” is the French word for 12.
 - “mitatith nisosap” is the Cree word for 12.
- Students should be encouraged to provide words from other languages.
- For #1, students could create a poster.



Answers

1. Possible Answers:
- One dozen
 - One ten and 2 ones
 - Twelve
 - douze
 - mitatith nisosap
 - $6 + 6$
 - $14 - 2$
 - 6×2
 - $24 \div 2$
 - XII
 - IIII IIII II
 - ...
2. a) 50%
b) 100%
c) 25%
d) 75%
3. a) $\frac{1}{4}$
b) $\frac{2}{4}$ or $\frac{1}{2}$
c) $\frac{5}{8}$



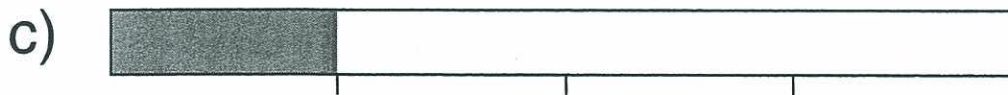
Representing Numbers 1

1. Numbers can be represented in different ways. For example, "two" can be shown using :

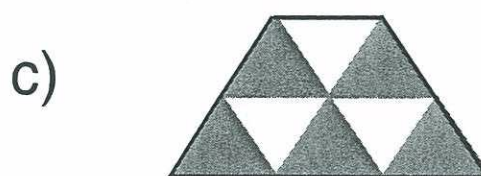
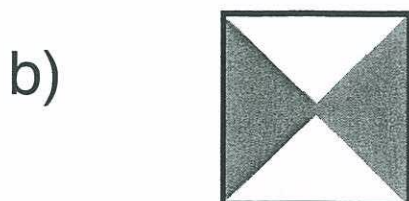
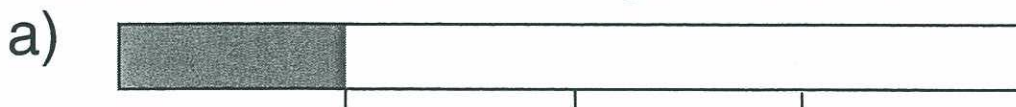
- Words: two deux niso pair
- Symbols: 2 II ••
- Operations: $6 - 4$ $8 \div 4$ $1.5 + 0.5$
- Diagrams:  

Represent 12 in eight different ways. Use words, symbols, operations, and diagrams.

2. What percent of each rectangle is shaded?



3. What fraction of each figure is shaded?



Representing Numbers 2

Vocabulary

- digits
- dozen
- equivalent fractions

Notes

- Question #1 needs to be read carefully. For example, students are not being asked for the number of days in a month but rather for the number of digits in the number of days in a month.

Answers

- a) 2
 - b) 2
 - c) 3
2. 06400
- a) 90.6
 - b) 101
 - c) 6487.4
 - d) 99.1
 - e) 79.50
- a) 50% ; $\frac{50}{100}$ or $\frac{1}{2}$
 - b) 75% ; $\frac{75}{100}$ or $\frac{3}{4}$
 - c) 20% ; $\frac{20}{100}$ or $\frac{1}{5}$

Representing Numbers 2

- How many digits are in the number of:
 - days in a month?
 - eggs in a dozen?
 - minutes in 3 hours?
- The meter below counts people entering a baseball stadium.



Show the meter after one more person has entered.



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- What number is:
 - 1 more than 89.6?
 - 10 more than 91?
 - 100 more than 6387.4?

-
- 1 less than 100.1?
 - 10 less than 89.50?

-
- For each diagram, give values of D. Use both a percent and an equivalent fraction.

