











HOW TO USE Essential Skills Bell Ringers – Math

About the Bell Ringers

The Essential Skills math bell ringers are generally organized to cover the most frequently tested topics first, moving from easier concepts to more difficult ones. Sometimes several skills are tested at once.

The bell ringers are provided in 60 slideshow files, as the sample below illustrates:

	Day 1 Fractions and Place Value (NQ Basic)
	Day 2 Simple Conversions (GE Basic)
	Day 3 Rounding, Ordering, and Absolute Value (NQ Intermediate)
	Day 4 Prime Numbers, GCF, LCM and Factors (NQ Intermediate)
	Day 5 Factors, Prime and Odds-Evens (NQ Advanced)
	Day 6 Story Problems with Whole Numbers, Fractions, and Percents (AF Basic)
	Day 7 Averages (SP Basic)
	Day 8 Percents (AF Intermediate)
	Day 9 Proportions and Rates (AF Intermediate)
	Day 10 Fractions, Proportions, and Rates (AF Advanced)

The file names include labels to guide you. Each file is titled with a general description, such as “Fractions and Place Value,” as well as a category and a level of difficulty. The six categories are:

- NQ = Number and Quantity
- AL = Algebra
- FN = Functions
- AF = Algebra and Functions
- GE = Geometry
- SP = Statistics and Probability

The three levels of difficulty are:

- Basic
- Intermediate
- Advanced


The daily bell ringers include 2 to 5 problems for the students to work through on their own. The problems are then repeated with a solution for you to use in discussing the item with the class.

FRACTIONS AND PLACE VALUE

81. Which of the following is NOT equal to $\frac{3}{8}$?

A. $\frac{6}{16}$ C. $\frac{31}{81}$ E. $\frac{120}{320}$
B. $\frac{15}{40}$ D. $\frac{33}{88}$

Identify equivalent fractions, fractions in lowest terms, one-digit factors, and place value of digits.
Level: Basic Skill Group Number and Quantity



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81. (C) NUM Basic

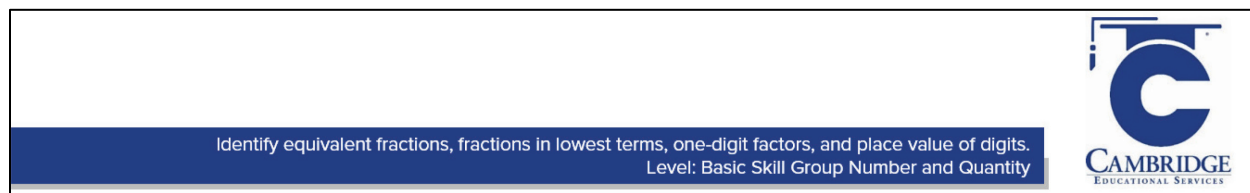
Because 31 is prime, $\frac{31}{81}$ is irreducible. All of the other choices can be reduced to 3 over 8:

A. $\frac{6}{16} = \frac{2 \cdot 3}{2 \cdot 8} = \frac{3}{8}$
B. $\frac{15}{40} = \frac{5 \cdot 3}{5 \cdot 8} = \frac{3}{8}$
D. $\frac{33}{88} = \frac{11 \cdot 3}{11 \cdot 8} = \frac{3}{8}$
E. $\frac{120}{320} = \frac{40 \cdot 3}{40 \cdot 8} = \frac{3}{8}$

Identify equivalent fractions, fractions in lowest terms, one-digit factors, and place value of digits.
Level: Basic Skill Group Number and Quantity



The bottom of each slide also includes the specific skill(s) the problems in the bell ringer are testing, as well as the category of the problem and the level of difficulty.



For further review, locate the appropriate subject and level of difficulty in your *Essential Skills* teacher's guide. You can find the section corresponding to a specific bell ringer using the problem numbers in the bell ringer. Preceding those problems in the *Essential Skills* guide you will find a short lesson introducing the skills tested by the group of items you are reviewing. Use that lesson or additional problems from the exercise to extend student learning.

Implementing the Bell Ringers

Depending on the number of days you are planning to use the bell ringers, you can implement them in a couple of different ways.

Option 1: 12 Weeks of Bell Ringers

Teach through the bell ringers for 60 days, using one bell ringer file each day. Each file includes 2 to 5 problems, plus the explanations for those problems.

Option 2: Selective Bell Ringer Coverage

Select bell ringers based on specific skills you want to focus on or a specific level of difficulty. For example, if you are only using the bell ringers on Fridays for a semester, you will need 12–14 bell ringers. You might decide to begin with Algebra topics, or you might work through the basic material first.

If you have questions about implementing the Essential Skills bell ringers, call Cambridge's teacher hotline at 1-800-444-4373.