

# Convert and Compare

GRADE 7

MATHEMATICS

B1.7

B2.3

Percents exist so that amounts of different sizes can be compared. Two students saving different totals toward different goals cannot be ranked by dollars, but they can be ranked by the share of the way there.

## PART A: AWKWARD CONVERSIONS

1. Convert  $7/8$  to a decimal: \_\_\_\_\_.
2. Convert  $7/8$  to a percent: \_\_\_\_\_%.
3. Convert 0.375 to eighths: \_\_\_\_\_/8.
4. Convert 62.5% to eighths: \_\_\_\_\_/8.

## PART B: COMPARE PROGRESS

5. Ayesha has saved \$45 of a \$60 goal. Luc has saved \$52 of an \$80 goal. Who is further along?

SHOW YOUR WORK

Answer: \_\_\_\_\_

6. A goal is  $\frac{5}{8}$  complete. Write that as a decimal and a percent, then say how much of a \$96 goal is still to go.

SHOW YOUR WORK

Answer: \_\_\_\_\_

7. Two students both say they are about three quarters of the way to an \$80 goal. One has \$58 and the other has \$64. Which is closer to three quarters?

SHOW YOUR WORK

Answer: \_\_\_\_\_

### PART C: CHANGE THE GOAL

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8. An \$80 goal raised by 25% becomes \$\_\_\_\_\_.
9. A \$120 goal cut by 10% becomes \$\_\_\_\_\_.
10. A \$64 goal cut by 50% and then raised by 50% becomes \$\_\_\_\_\_.

### PART D: WHICH IS LARGER?

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11. Which of these is the largest?  
(A) 0.8    (B)  $\frac{3}{4}$     (C) 78%
12.  $\frac{1}{3}$  written as a percent is closest to:  
(A) about 33%    (B) about 3%    (C) about 13%

## PART E: WHEN ROUNDING COSTS

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- 13.** A classmate says  $\frac{1}{3}$  is about 30%. Explain how far off that is, and describe a savings goal where the difference would matter and one where it would not. Then say how you would cut a \$120 goal by 25% in your head.

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## Convert and Compare

### ANSWER KEY

1. 0.875
2. 87.5
3. 3
4. 5
5. Ayesha, at 75% against Luc's 65%, even though Luc has more dollars saved.
6. 0.625 and 62.5%, with \$36 still to go.
7. The one with \$58. That is 72.5%, two and a half points from 75%, while \$64 is 80% and five points away.
8. 100
9. 108
10. 48
11. A) 0.8
12. A) about 33%
13.  $\frac{1}{3}$  is 33.3%, so calling it 30% is about three points low. On a \$30 goal that is about a dollar and hardly matters; on a \$600 goal it is roughly \$20, which is a week of saving. To cut \$120 by 25%, halve it twice to get \$30, then take that off, leaving \$90.

## TEACHER NOTES

Extension beyond the grade-level expectation: Part B question 1 is built so the student with fewer dollars is further along, which is the whole reason percents are used for comparison. Part D asks students to judge when a rounding error is affordable rather than simply calling it wrong.