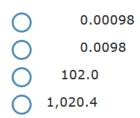
The table shows the proportional relationship between megabytes and gigabytes of data.

Megabytes	Gigabytes
100	0.098
10,000	9.8
1,000,000	980
100,000,000	98,000

How many gigabytes is 1 megabyte equal to?



Correct Answer: 0.00098

Aligned to: Claim 1, Target A / Analyze proportional relationships and use them to solve real-world and mathematical problems.

Students solve real-world and mathematical problems involving proportional relationships. Students who score at Level 2 are more likely to successfully find the unit rate from information presented in a table.

Overall	Level 1	Level 2	Level 3	Level 4
Difficulty	% Correct	% Correct	% Correct	% Correct
62.7%	13.7%	57.4%	85.8%	97.4%

Mr. Palmer is buying art supplies for his students. He has 160 students and each one needs a paintbrush. He has 24 brushes left over from last year, and paintbrushes are sold in packs of 3. Which equation can Mr. Palmer use to find how many packs, p, of paintbrushes he needs to buy?

3p + 24 = 1603p - 24 = 16024p + 3 = 16024p - 3 = 160

Correct Answer: 3p + 24 = 160

Aligned to: Claim 1, Target D / Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

Students write and solve expressions and equations in mathematical problems and real-world problems. Students who score at Level 2 are more likely to successfully write an equation that represents a real-world situation.

Overall	Level 1	Level 2	Level 3	Level 4
Difficulty	% Correct	% Correct	% Correct	% Correct
65.5%	16.0%	60.8%	87.1%	97.6%

A coach is ordering a jersey for each of the 11 players on a team. Each jersey costs \$45. The delivery fee is \$1.50 per pound. Each jersey weighs $\frac{1}{2}$ pound. What is the total cost of the order?

Ο	\$371.25
Ο	\$496.50
Ο	\$503.25
Ο	\$511.50

Correct Answer: \$503.25

Aligned to: Claim 1, Target B / Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

Students add, subtract, multiply, and divide rational numbers in mathematical and real-world problems. Students who score at Level 3 are more likely to successfully solve real-world problems involving computation with rational numbers represented in different forms.

Overall	Level 1	Level 2	Level 3	Level 4
Difficulty	% Correct	% Correct	% Correct	% Correct
57.8%	5.2%	49.9%	88.4%	98.9%

Becca, a seventh-grade student, wants to estimate the percentage of students in her middle school who have cellphones. Whom should Becca sample?

- Thirty seventh-grade students.
- Thirty middle school students.
- Thirty seventh-grade students who have cellphones.
- Thirty middle school students who have cellphones.

Correct Answer: Thirty middle school students.

Aligned to: Claim 1, Target G / Use random sampling to draw inferences about a population.

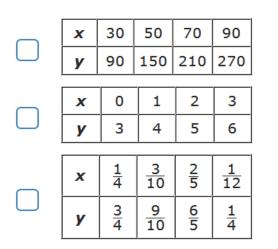
Students relate the relevance of statistics to surveying a representative random sample. Students who score at Level 3 are more likely to successfully identify a random sample of a population from which they could gather information.

Overall	Level 1	Level 2	Level 3	Level 4
Difficulty	% Correct	% Correct	% Correct	% Correct
59.7%	10.2%	53.5%	85.5%	97.7%

A proportional relationship is shown in this table.

x	2	4	4 6	
y	6	12	18	24

Which tables show the same proportional relationship? Select all that apply.



	x	5	6	11	12
J	y	8	18	14	15
	x	0	2	3	4
J	y	0	4	6	8

Correct Answers:

					x	1	3	25	$\frac{1}{12}$
x	30	50	70	90		т 2	10	6	1
y	90	150	210	270	y	<u>3</u> 4	10	5	1 4

Aligned to: Claim 1, Target A / Analyze proportional relationships and use them to solve real-world and mathematical problems.

Students solve real-world and mathematical problems involving proportional relationships. Students who score at Level 4 are more likely to successfully compare proportional relationships presented in a table.

Overall	Level 1	Level 2	Level 3	Level 4
Difficulty	% Correct	% Correct	% Correct	% Correct
34.1%	4.5%	25.2%	57.5%	87.9%

What is $\frac{4}{7}(1.5 - 3\frac{1}{2})?$

$$\begin{array}{c} -1\frac{1}{7} \\ -1\frac{3}{7} \\ -2\frac{4}{7} \\ -2\frac{9}{14} \end{array}$$

Correct Answer: $-1\frac{1}{7}$

Aligned to: Claim 1, Target D / Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

Students write and solve expressions and equations in mathematical problems and real-world problems. Students who score at Level 4 are more likely to successfully solve mathematical problems by simplifying an expression with different forms of rational numbers.

Overall	Level 1	Level 2	Level 3	Level 4
Difficulty	% Correct	% Correct	% Correct	% Correct
29.1%	2.7%	19.5%	52.4%	87.3%