

The Whiteboard Showdown

Unit 4: Understanding Percent

Level 1 — 2 pts

Level 2 — 4 pts

Level 3 — 6 pts

Level 4 — 10 pts

Math 8 | Click to reveal answers

LEVEL 1

Get Ready!

First correct = 2 pts | Correct = 1 pt

LEVEL 1

First correct = 2 pts | Correct = 1 pt

**A hundreds grid has 63 squares shaded.
What percent does this represent?**

Answer:

63%

LEVEL 1

First correct = 2 pts | Correct = 1 pt

Express 0.047 as a percent.

Answer:

4.7%

LEVEL 1

First correct = 2 pts | Correct = 1 pt

What is 50% of 80?

Answer:

40

LEVEL 1

First correct = 2 pts | Correct = 1 pt

A hundreds grid has one full grid shaded,
plus 22 squares of a second grid.
What percent does this represent?

*Answer:***122%**

LEVEL 1

First correct = 2 pts | Correct = 1 pt

Express 35% as a decimal.

Answer:

0.35

LEVEL 2

Get Ready!

First correct = 4 pts | Correct = 2 pts

LEVEL 2

First correct = 4 pts | Correct = 2 pts

What is 12.5% of 240?

Answer:

30

LEVEL 2

First correct = 4 pts | Correct = 2 pts

**A jacket costs \$80. It is on sale for 30% off.
What is the sale price?**

Answer:

\$56

LEVEL 2

First correct = 4 pts | Correct = 2 pts

Express $9/4$ as a percent.

Answer:

225%

LEVEL 2

First correct = 4 pts | Correct = 2 pts

**Express $7/12$ as a percent,
rounded to the nearest tenth.**

Answer:

58.3%

LEVEL 2

First correct = 4 pts | Correct = 2 pts

What number is 15% more than 80?

Answer:

92

LEVEL 3

Get Ready!

First correct = 6 pts | Correct = 3 pts

LEVEL 3

First correct = 6 pts | Correct = 3 pts

**A school has 840 students. 65% take the bus.
How many students do NOT take the bus?**

Answer:

294 students

$(840 \times 0.35 = 294)$

LEVEL 3

First correct = 6 pts | Correct = 3 pts

**A car was worth \$24,000. After year 1 it lost 15% of its value.
After year 2 it lost another 12% of its new value.
What is the car worth after two years?**

Answer:**\$17,952** **$(\$24,000 \times 0.85 \times 0.88)$**

LEVEL 3

First correct = 6 pts | Correct = 3 pts

GST is 5% and PST is 7%.
What is the total cost of a \$120 item including both taxes?

Answer:

\$134.40
 $(\$120 \times 1.12)$

LEVEL 3

First correct = 6 pts | Correct = 3 pts

**Express 0.0016 as a percent
and as a fraction in lowest terms.**

Answer:

0.16% and $\frac{1}{625}$

LEVEL 3

First correct = 6 pts | Correct = 3 pts

**After a 25% discount, a pair of shoes costs \$67.50.
What was the original price?**

*Answer:***\$90** **$(\$67.50 \div 0.75)$**

LEVEL 4

Get Ready!

First correct = 10 pts | Correct = 5 pts

LEVEL 4

First correct = 10 pts | Correct = 5 pts

A population of 12,400 grew by 3.5% in year one, then shrank by 2% in year two.

What is the population after two years?

Answer:

12,577

$(12,400 \times 1.035) = 12,934 \rightarrow 12,934 \times 0.98 = 12,576.84$

LEVEL 4

First correct = 10 pts | Correct = 5 pts

A scientist finds that 0.0032 mL of a 1 mL water sample contains a mineral. A 5,000 mL tank has the same concentration. How many mL of mineral does it contain?

Answer:

0.16 mL

$(0.0032\% \times 5,000 = 0.16)$

LEVEL 4

First correct = 10 pts | Correct = 5 pts

Brand X Apple Juice: 0.06 L of real juice in a 400 mL bottle.
Brand Y Apple Juice: 18% real juice in a 350 mL bottle.
Which has a higher percentage of real juice?

Answer:

Brand X: $60 \text{ mL} / 400 \text{ mL} = 0.15 \rightarrow 15\%$

Brand Y has more (18% vs 15%)