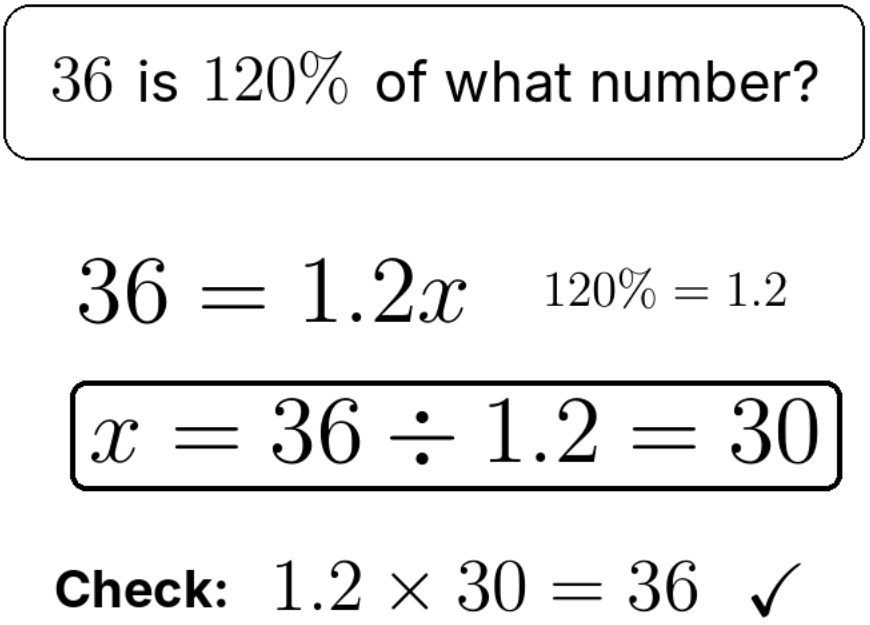
The Percent Equation, Part 2

RP14-V2 · storyboard · RP14 The percent equation. Read each picture with its sentences.

Picture 1



1. 36 is 120 percent of what number?
2. 36 is 120 percent of x: 36 equals 1.2 x.
3. Divide both sides by 1.2: x is 30.
4. Check: 1.2 times 30 is 36.
5. And 120 percent of the whole is more than the whole, so the whole must be less than 36.

Picture 2

Trap $36 \text{ is } 120\% \text{ of what?}$

$\times \; 1.2 \times 36 = 43.2$

$\checkmark \;\; 36 \div 1.2 = 30$

6. Watch for the trap: multiplying when the whole is unknown.
7. 1.2 times 36 takes 120 percent of the part.
8. Divide instead.

Picture 3

135 students walk to school. That is 45% of all the students. How many students are there?

$$0.45x = 135 \quad \text{the whole is unknown}$$

$$\boxed{x = 135 \div 0.45 = 300}$$

Three kinds

$\text{part: } \times \qquad \text{percent: } \frac{\text{part}}{\text{whole}} \qquad \text{whole: } \div$

9. 135 students walk to school.
10. That is 45 percent of all the students.
11. How many students are there?
12. Call all the students x.
13. 45 percent of x is 135: 0.45 x equals 135.
14. Divide by 0.45: there are 300 students.
15. So there are three kinds.
16. To find the part, multiply.
17. To find the percent, divide the part by the whole.
18. To find the whole, divide by the percent.