

Grade 6 · One-Step Equations · Test

Common Core 6.EE.B.5, 6.EE.B.6, 6.EE.B.7 · mathovore.fr

Name: _____ Date: ____/____/____ Score: _____

This 45-minute test covers solving one-step equations and writing equations for word problems (6.EE.B.5, 6.EE.B.6, and 6.EE.B.7). It has 9 questions worth 20 points. Show every step of your work; calculators are not allowed.

Test information

- **Grade:** Grade 6
- **Chapter:** One-Step Equations
- **Common Core:** 6.EE.B.5, 6.EE.B.6, 6.EE.B.7
- **Time:** 45 minutes
- **Total:** 20 points (Question 1: 2 pts; Question 2: 2 pts; Question 3: 2 pts; Question 4: 2 pts; Question 5: 2 pts; Question 6: 3 pts; Question 7: 3 pts; Question 8: 2 pts; Question 9: 2 pts)

Question 1: Testing Values (2 points)

Which of the values 4, 6, and 9 makes the equation $x+5=11$ true? Show the substitution that proves your answer. (2 points)

Question 2: Whole-Number Equations (2 points)

Solve each equation.

- $x+13=40$ (1 point)
- $7x=63$ (1 point)

Question 3: Decimal Equations (2 points)

Solve each equation.

- $x+4.8=11.3$ (1 point)
- $0.6x=4.2$ (1 point)

Question 4: Fraction Equations (2 points)

Solve each equation. Write each answer as a fraction in simplest form.

a. $x + \frac{1}{3} = \frac{5}{6}$ (1 point)

b. $4x = \frac{3}{2}$ (1 point)

Question 5: Write and Solve (2 points)

A number n plus 12.5 equals 30.

a. Write an equation for this sentence. (1 point)

b. Solve the equation. (1 point)

Question 6: Finding the Error (3 points)

Mei solved $x + 9 = 21$ and wrote $x = 30$.

a. Describe her error. (1 point)

b. Find the correct solution. (1 point)

c. Show by substitution that your solution is correct. (1 point)

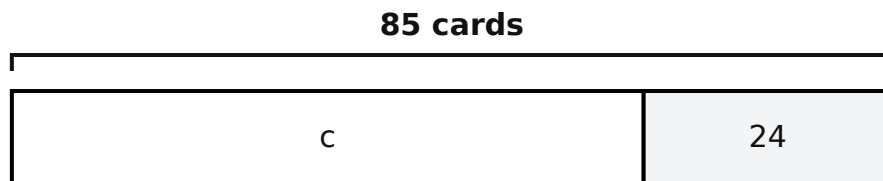
Question 7: Baseball Cards (3 points)

Jamal got 24 more baseball cards for his birthday. Now he has 85 cards.

a. Write an equation for the number of cards c he had before his birthday. (1 point)

b. Solve the equation. (1 point)

c. Verify the answer by substitution. (1 point)



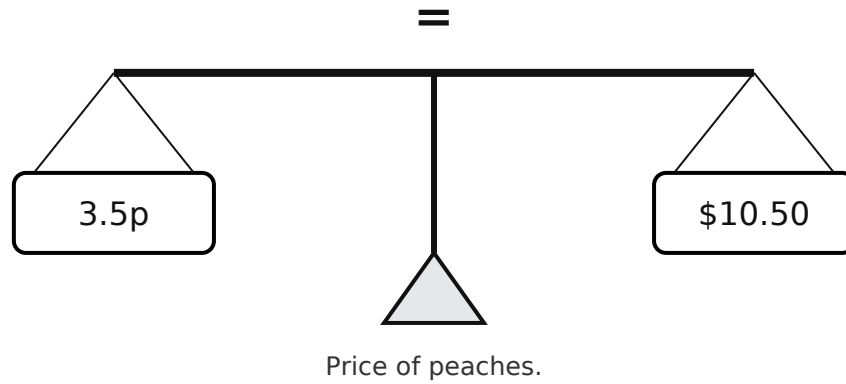
Jamal's cards.

Question 8: Peach Prices (2 points)

A farmers market stand sells 3.5 pounds of peaches for \$10.50.

a. Write an equation for the price p per pound. (1 point)

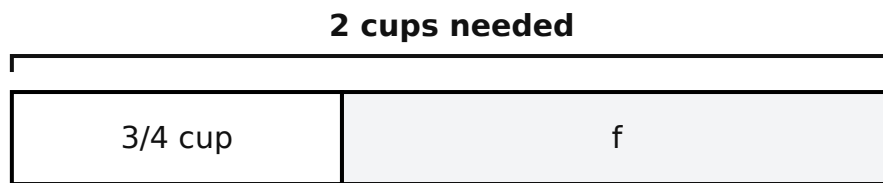
b. Find the price per pound. (1 point)



Question 9: Cooking with Flour (2 points)

Ethan has $\frac{3}{4}$ cup of flour. A recipe needs 2 cups.

- Write an equation for the additional flour f he needs. (1 point)
- Find how much more flour he needs. (1 point)



Ethan's flour.