

GRADE 6

SIMPLE EQUATIONS

Complete Worksheet Pack

What this pack covers

One-step equations • Addition & subtraction • Multiplication & division • Two-step equations • Brackets • Unknowns on both sides • Real-life equations • Reasoning & checking

6 practice worksheets + 6 separate answer-key pages

Worksheet 1: One-Step Addition & Subtraction Equations

Show each step clearly. Substitute your answer back into the equation when asked or when checking your work.

1. Solve: $x + 7 = 19$.
2. Solve: $y - 9 = 14$.
3. Solve: $m + 15 = 32$.
4. Solve: $p - 18 = 25$.
5. Solve: $a + 24 = 50$.
6. Solve: $b - 13 = 7$.
7. Write an equation and solve: A number increased by 11 is 35.
8. Write an equation and solve: A number decreased by 16 is 29.

Answer Key 1

Worksheet 1: One-Step Addition & Subtraction Equations — Answers

1. $x=12$
2. $y=23$
3. $m=17$
4. $p=43$
5. $a=26$
6. $b=20$
7. $n+11=35$, $n=24$
8. $n-16=29$, $n=45$

Teacher note: Accept equivalent equation forms where mathematically correct.

Worksheet 2: One-Step Multiplication & Division Equations

Show each step clearly. Substitute your answer back into the equation when asked or when checking your work.

1. Solve: $4x = 28$.
2. Solve: $y/5 = 9$.
3. Solve: $7m = 63$.
4. Solve: $p/8 = 6$.
5. Solve: $12a = 144$.
6. Solve: $b/9 = 7$.
7. Write an equation and solve: 6 times a number is 54.
8. Write an equation and solve: A number divided by 12 is 5.

Answer Key 2

Worksheet 2: One-Step Multiplication & Division Equations — Answers

1. $x=7$
2. $y=45$
3. $m=9$
4. $p=48$
5. $a=12$
6. $b=63$
7. $6n=54$, $n=9$
8. $n/12=5$, $n=60$

Teacher note: Accept equivalent equation forms where mathematically correct.

Worksheet 3: Two-Step Equations

Show each step clearly. Substitute your answer back into the equation when asked or when checking your work.

1. Solve: $2x + 5 = 19$.
2. Solve: $3y - 4 = 20$.
3. Solve: $5m + 7 = 42$.
4. Solve: $4p - 9 = 31$.
5. Solve: $6a + 2 = 38$.
6. Solve: $7b - 5 = 44$.
7. Write an equation and solve: Five times a number plus 8 equals 48.
8. Write an equation and solve: Three times a number minus 7 equals 26.

Answer Key 3

Worksheet 3: Two-Step Equations — Answers

1. $x=7$
2. $y=8$
3. $m=7$
4. $p=10$
5. $a=6$
6. $b=7$
7. $5n+8=48$, $n=8$
8. $3n-7=26$, $n=11$

Teacher note: Accept equivalent equation forms where mathematically correct.

Worksheet 4: Equations with Brackets & Unknowns on Both Sides

Show each step clearly. Substitute your answer back into the equation when asked or when checking your work.

1. Solve: $2(x + 3) = 18$.
2. Solve: $3(y - 2) = 21$.
3. Solve: $4m + 5 = 2m + 17$.
4. Solve: $7p - 4 = 3p + 20$.
5. Solve: $5(a + 2) = 35$.
6. Solve: $2(b - 4) = 18$.
7. Solve: $6x + 3 = 4x + 17$.
8. Solve: $9z - 6 = 5z + 18$.

Answer Key 4

Worksheet 4: Equations with Brackets & Unknowns on Both Sides — Answers

1. $x=6$
2. $y=9$
3. $m=6$
4. $p=6$
5. $a=5$
6. $b=13$
7. $x=7$
8. $z=6$

Teacher note: Accept equivalent equation forms where mathematically correct.

Worksheet 5: Equations in Real-Life Problems

Show each step clearly. Substitute your answer back into the equation when asked or when checking your work.

1. A number plus 18 is 47. What is the number?
2. A number multiplied by 6 gives 78. What is the number?
3. A book costs \$ x . After adding a \$5 cover fee, the total is \$32. Find x .
4. A taxi charges \$4 plus \$3 per kilometre. The total fare is \$25. How many kilometres were travelled?
5. A rectangle has width 5 cm and area 45 cm^2 . Find its length using an equation.
6. A student had some points, earned 12 more, and finished with 50. How many points did they start with?
7. Five identical boxes plus a \$10 delivery charge cost \$85. What is the cost of one box?
8. A number is doubled and then 9 is subtracted. The result is 31. Find the number.

Answer Key 5

Worksheet 5: Equations in Real-Life Problems — Answers

1. 29
2. 13
3. $x+5=32$, $x=\$27$
4. $4+3k=25$, $k=7$ km
5. $5l=45$, $l=9$ cm
6. 38 points
7. $5b+10=85$, $b=\$15$
8. $2n-9=31$, $n=20$

Teacher note: Accept equivalent equation forms where mathematically correct.

Worksheet 6: Equation Reasoning Challenge

Show each step clearly. Substitute your answer back into the equation when asked or when checking your work.

1. Solve and check: $4x + 7 = 35$.
2. Solve: $5(2x - 1) = 45$.
3. Solve: $3x + 8 = x + 24$.
4. A number is multiplied by 4, then 6 is added. The result is 42. Find the number.
5. The sum of two consecutive integers is 57. Find the integers.
6. The perimeter of a rectangle is 54 cm. Its length is 3 cm more than its width. Find both dimensions.
7. A shop sells 3 identical notebooks and a \$4 pen for \$25. Find the price of one notebook.
8. Find x : $2(x + 5) + 3 = 25$. Then verify your answer.

Answer Key 6

Worksheet 6: Equation Reasoning Challenge — Answers

1. $x=7$; check: $28+7=35$
2. $x=5$
3. $x=8$
4. $4n+6=42$, $n=9$
5. 28 and 29
6. Width 12 cm, length 15 cm
7. $3n+4=25$, $n=\$7$
8. $x=6$; $2(11)+3=25$

Teacher note: Accept equivalent equation forms where mathematically correct.