

Math

Grade 7

Balance the scales

Keep both sides equal to solve for the unknown.



I can solve one- and two-step equations.



1



Fill the gaps

Write the missing answer.

1. $x + 7 = 12$ $x =$ _____

2. $3x = 21$ $x =$ _____

3. $x - 4 = 9$ $x =$ _____

4. $2x + 5 = 17$ $x =$ _____

5. $5x - 3 = 22$ $x =$ _____

6. $x / 4 = 8$ $x =$ _____

2



Pick the answer

Circle the right answer.

1. A number times 4 is 28. What is the number?

A 7

B 24

C 32

2. I think of a number, add 9 and get 15. What is it?

A 24

B 6

C 9

3. Which equation matches: "3 more than twice x is 11"?

A $3x + 2 = 11$

B $2(x + 3) = 11$

C $2x + 3 = 11$

3 Solve it

Write the missing answer.

1. $x + 15 = 40$ $x =$ _____
2. $4x = 52$ $x =$ _____
3. $x - 8 = -3$ $x =$ _____
4. $3x - 7 = 20$ $x =$ _____
5. $6x + 4 = 40$ $x =$ _____
6. $x / 3 + 2 = 7$ $x =$ _____
7. $2(x + 4) = 22$ $x =$ _____
8. $5x = 2x + 12$ $x =$ _____

4 Input and output

Work out each expression for $x = 1$ to 5.

x	1	2	3	4	5
$3x + 1$					
$10 - 2x$					

5 Steps in order

Number the steps for solving $3x + 5 = 20$.

- ☐ Divide both sides by 3.
- ☐ Write the equation $3x + 5 = 20$.
- ☐ The answer is $x = 5$.
- ☐ Subtract 5 from both sides: $3x = 15$.

6 True or false

Circle true or false.

1. $x = 4$ solves $3x + 2 = 14$.

True

False

2. $x = 5$ solves $2x - 1 = 11$.

True

False

3. If $x + 6 = 10$, then $x = 16$.

True

False

4. You may subtract the same number from both sides of an equation.

True

False

5. If $7x = 35$, then $x = 5$.

True

False

7 Word problems

Circle the right answer.

1. A number plus 12 is 30. What is the number?

A 42

B 18

C 360

2. A rectangle has a perimeter of 26 cm and a length of 8 cm. What is the width?

A 18 cm

B 10 cm

C 5 cm

3. Tom is x years old. His mum is $3x$ years old, and she is 36. How old is Tom?

A 12

B 33

C 108

8 Think and write

Tickets cost 6 each plus a booking fee of 4. Mia paid 34. Write and solve an equation to find how many tickets she bought.

How did it go?



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Answer key

Balance the scales

Keep both sides equal to solve for the unknown.



I can solve one- and two-step equations.



1



Fill the gaps

Write the missing answer.

1. $x + 7 = 12$ $x =$ 5

2. $3x = 21$ $x =$ 7

3. $x - 4 = 9$ $x =$ 13

4. $2x + 5 = 17$ $x =$ 6

5. $5x - 3 = 22$ $x =$ 5

6. $x / 4 = 8$ $x =$ 32

2



Pick the answer

Circle the right answer.

1. A number times 4 is 28. What is the number?

A 7

B 24

C 32

2. I think of a number, add 9 and get 15. What is it?

A 24

B 6

C 9

3. Which equation matches: "3 more than twice x is 11"?

A $3x + 2 = 11$ B $2(x + 3) = 11$ C $2x + 3 = 11$

3 Solve it

Write the missing answer.

1. $x + 15 = 40$ $x =$ 25

2. $4x = 52$ $x =$ 13

3. $x - 8 = -3$ $x =$ 5

4. $3x - 7 = 20$ $x =$ 9

5. $6x + 4 = 40$ $x =$ 6

6. $x / 3 + 2 = 7$ $x =$ 15

7. $2(x + 4) = 22$ $x =$ 7

8. $5x = 2x + 12$ $x =$ 4

4 Input and output

Work out each expression for $x = 1$ to 5.

x	1	2	3	4	5
$3x + 1$	4	7	10	13	16
$10 - 2x$	8	6	4	2	0

5 Steps in order

Number the steps for solving $3x + 5 = 20$.

3 Divide both sides by 3.

1 Write the equation $3x + 5 = 20$.

4 The answer is $x = 5$.

2 Subtract 5 from both sides: $3x = 15$.

6 True or false

Circle true or false.

1. $x = 4$ solves $3x + 2 = 14$.

True

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