Solving Equations

Practice worksheet · KS3

Name: _____ Date: _____

1. Solve x + 3 = 8

2. Solve x + 9 = 15

3. Solve x + 6 = 14

4. Solve x - 4 = 10

5. Solve x + 12 = 20

6. Solve 3x = 12

7. Solve 5x = 20

8. Solve 4x = 28

9. Solve 7x = 42

10. Solve 2x + 5 = 17

11. Solve 3x + 4 = 19

12. Solve 4x + 3 = 23

13. Solve 5x + 2 = 37

14. Sam solves 2x + 6 = 20 by sharing both sides by 2 first, and gets x + 6 = 10, so x = 4. What has gone wrong, and what is x?

★ stretch

15. Solve 4x - 5 = 27, and write down which move you did first and why.

★ stretch

Answers

Solving equations

1. take 3 off both sides = x = 5

2. take 9 off both sides = x = 6

3. take 6 off both sides = x = 8

4. add 4 to both sides = x = 14

5. take 12 off both sides = x = 8

6. share both sides by 3 = x = 4

7. share both sides by 5 = x = 4

8. share both sides by 4 = x = 7

9. share both sides by 7 = x = 6

10. take 5 off both sides -> 2x = 12, then share both sides by 2 = x = 6

11. take 4 off both sides -> 3x = 15, then share both sides by 3 = x = 5

12. take 3 off both sides -> 4x = 20, then share both sides by 4 = x = 5

13. take 2 off both sides -> 5x = 35, then share both sides by 5 = x = 7

14. sharing by 2 must halve the 6 as well. Take 6 off both sides first: 2x = 14, so x = 7 = he only shared pa

15. undo the subtracting first: 4x = 32, then share both sides by 4. Sharing first would break the 5 into fraction