bananalearn

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Algebraic identities with area models for Grade 8

Practice worksheet - Maths · Grade 8

Name: _____ Date: _____

Show your working. Answers are not included in this copy.

Try each task before opening its answer. Give an example or reason, not only a label.

Write an answer and your reason before opening the explanation. Check the reasoning as well as the final answer.

1. Expand $(x + 2)^2$.

2. Expand $(x - 5)^2$.

3. Expand $(x + 6)(x - 6)$.

4. Expand $(3x + 1)^2$.

5. Expand $(x + 1)(x + 4)$.

6. Calculate 101^2 using an identity.

7. Calculate 49×51 using an identity.

8. Factorise $x^2 - 16$.

Practice continued

9. Factorise $x^2 - 8x + 16$.

10. Is $(a+b)^2=a^2+b^2$ always true?

11. Use a=1, b=2 to disprove that false rule.

12. Is x+3=8 an identity?

13. Why do two ab terms appear in the square model?

14. Is $x^2+6\,x+8$ equal to $(x+3)^2$?