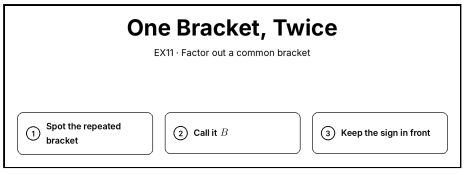
# One Bracket, Twice: teacher script

EX11-V1 · EX11 Factor out a common bracket · teachers only. Without a screen, read each Say line and draw each Draw step on the board. About 73 seconds as a video.

---

**01**

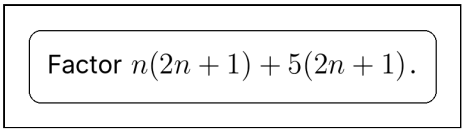



**Say.** One bracket, twice. Spot the bracket that appears in every part, call it B, and take it out. Keep the sign in front of each part.

**Draw.** Write the title “One Bracket, Twice” and the steps: 1. Spot the repeated bracket; 2. Call it $B$; 3. Keep the sign in front.

---

**02**

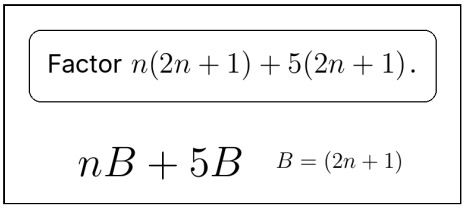



**Say.** Factor n times the bracket 2n + 1, plus five times the same bracket.

**Draw.** Clear the board. Write “Factor n(2n + 1) + 5(2n + 1).” in a box at the top.

---

**03**

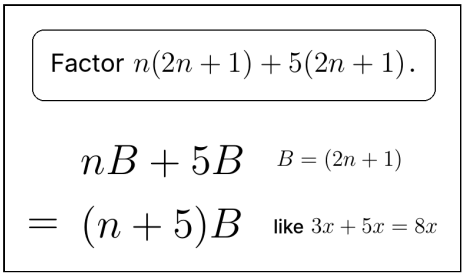



**Say.** Call the bracket B. Then it is n B plus five B.

**Draw.** Write nB + 5B on the next line. Beside it, write “B = (2n + 1)”.

---

**04**

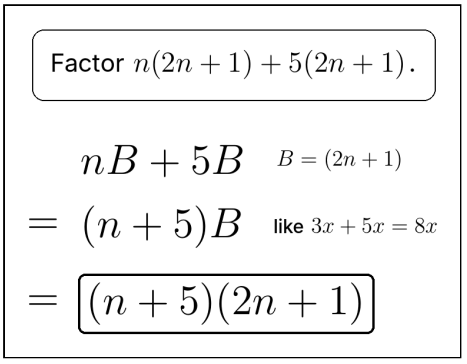



**Say.** Just like three x plus five x, that is n + 5, times B.

**Draw.** Write = (n + 5)B on the next line. Beside it, write “like 3x + 5x = 8x”.

---

**05**

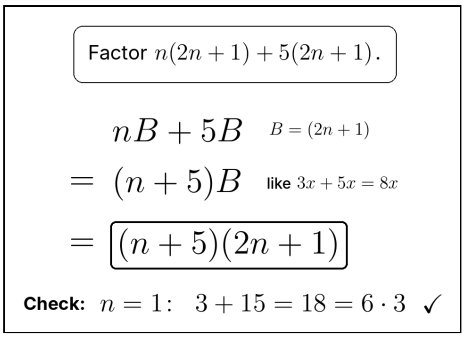



**Say.** Put the bracket back: n + 5, times 2n + 1.

**Draw.** Write = (n + 5)(2n + 1) and box it on the next line.

---

**06**

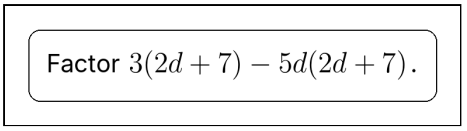



**Say.** Check with n = 1: three plus fifteen is 18, and six times three is 18 too.

**Draw.** Below, write “Check: n = 1: 3 + 15 = 18 = 6 · 3” and tick it ✓.

---

**07**

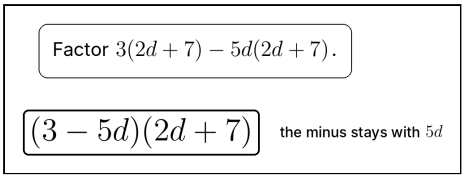



**Say.** Now factor three times the bracket 2d + 7, minus five d times the same bracket.

**Draw.** Clear the board. Write “Factor 3(2d + 7) − 5d(2d + 7).” in a box at the top.

---

**08**

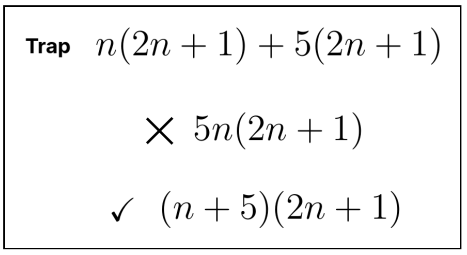



**Say.** Take out the bracket. What is left is three, minus five d: the minus sign stays with it.

**Draw.** Write (3 − 5d)(2d + 7) and box it on the next line. Beside it, write “the minus stays with 5d”.

---

**09**

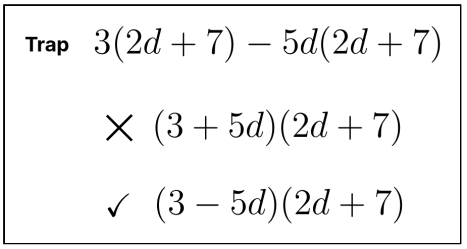



**Say.** Watch for the trap: multiplying instead of adding. It is not five n times the bracket. The parts are added: n + 5.

**Draw.** Clear the board. Write “Trap” and n(2n + 1) + 5(2n + 1). Below, write 5n(2n + 1) and cross it out ×. Then write (n + 5)(2n + 1) with a tick ✓.

---

**10**

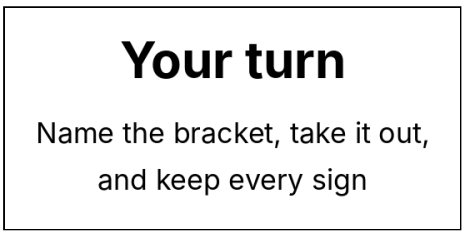



**Say.** And keep the sign. Three plus five d is wrong: the minus belongs to five d, so it is three minus five d.

**Draw.** Clear the board. Write “Trap” and 3(2d + 7) − 5d(2d + 7). Below, write (3 + 5d)(2d + 7) and cross it out ×. Then write (3 − 5d)(2d + 7) with a tick ✓.

---

**11**




**Say.** Now it is your turn. Name the bracket, take it out, and keep every sign.

**Draw.** Point to today’s activity: Name the bracket, take it out, and keep every sign