Build.

1. $X^2 - 3X - 7$

2. $2X^2 - 7X - 3$

3. $X^2 + 5X + 9$

Build and add.

4. $X^2 + 3X + 2$
   $+ X^2 + 7X + 12$

5. $X^2 + 6X + 5$
   $+ 3X^2 - X - 2$

6. $5X^2 - 5X - 10$
   $+ 2X^2 + 11X + 5$

Build a rectangle and find the area (product).

7. $(X + 4)(X + 5) =$

8. $(X + 7)(X + 3) =$

9. $(X + 4)(X + 8) =$

Multiply.

10. $7X + 1$
$\times \quad X + 2$

11. $3X + 7$
$\times \quad X + 6$

12. $2X + 8$
$\times \; 3X + 1$

13. $X + 8$
$\times \; X - 3$

14. $2X - 1$
$\times \quad X + 9$

15. $3X + 5$
$\times \quad X + 2$

16. $4X - 2$
$\times \quad X - 3$

17. $5X + 2$
$\times \; 3X - 3$

18. $3X + 7$
$\times \; 4X + 2$

Build and add.

1. $3X^2 + 7X + 6$
   $+ \ X^2 + 2X + 3$

2. $2X^2 + 5X + 1$
   $+ \quad X^2 + 3X + 4$

3. $4X^2 + 8X + 2$
   $+ \ -X^2 + 3X - 1$

Build a rectangle and find the area (product).

4. $(X + 4)(X + 8) =$

5. $(X + 5)(X + 2) =$

6. $(X + 2)(X + 6) =$

Multiply.

7. $3X + 6$
   $\times \ X + 2$

8. $2X + 5$
   $\times \ X + 3$

9. $4X - 5$
   $\times \ X + 1$

10. Write on one line: $\frac{1}{X^{-4}}$

11. Rewrite using positive exponents: $X^{-3}$

Simplify. Write expressions with exponents on one line.

12. $5^2 \times 3^0 \times 5^{-4} =$

13. $A^4 \div A^7 =$

14. $(5^2)^5 =$

15. $(5)^{12} = (5^3)^{?} =$

16. $\sqrt{196}$ =

17. $C^{-5} \times C^{2}$ =

18. The base of a rectangle is X + 4, and the height is X + 5. What is the area of the rectangle? (Remember that the area of a rectangle is base times the height.)

19. Find the area of the rectangle in #18 if X equals six.

20. Take two times the base and height of the rectangle in #18, using the distributive property, and then find the polynomial that expresses the new area.

Build and add.

1. $X^2 - 3X - 7$
$+ 2X^2 + 4X - 4$

2. $X^2 + 11X + 2$
$+ 3X^2 - 4X + 6$

3. $X^2 - 10X - 5$
$+ -2X^2 - X + 14$

Build a rectangle and find the area (product).

4. $(X + 2)(X + 7) =$

5. $(2X + 3)(X + 4) =$

6. $(X + 1)(X + 9) =$

Multiply.

7. $2X + 4$
$\times \quad X + 3$

8. $3X - 1$
$\times \quad X + 4$

9. $2X - 3$
$\times \quad X - 4$

10. Write on one line: $\frac{1}{X^4}$

11. Rewrite using positive exponents: $\frac{1}{Y^{-5}}$

Simplify. Write expressions with exponents on one line.

12. $3^7 \times 4^3 \times 4^{-2} =$

13. $B^5 \div B^1 =$

14. $(8^3)^6 =$

15. $(2)^{15} = (2^3)^? =$

16. $\sqrt{225} =$

17. $D^{-3} \times D^8 \times D^{-7} =$

18. The base of a rectangle is $2X + 4$, and the height is $X + 4$. What is the area of the rectangle?

19. Find the area of the rectangle in #18 if X equals 10.

20. The area of a second rectangle is $X^2 + 3X + 1$. What is the sum of the area of the two rectangles (from #18 and #20)?