

Find the GCF of each pair of monomials.

1.  $20, 45x$

2.  $15r, 25$

3.  $8xy, 14x$

4.  $30w, 70w$

5.  $4st, 12s$

6.  $11gh, 33g$

7.  $16mn, 24m$

8.  $25f, 60g$

9.  $33c, 55cd$

10.  $50j, 75jk$

11.  $27cd, 72cde$

12.  $48t, 60st$

Factor each expression. If the expression cannot be factored, write *cannot be factored*.

13.  $4x + 12$

14.  $8r - 14$

15.  $5x + 35$

16.  $7 + 14x$

17.  $32x - 15$

18.  $24 + 32x$

19.  $6x - 9$

20.  $48 + 24x$

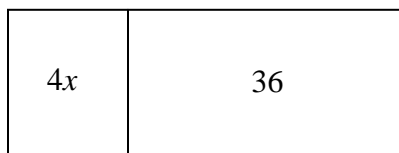
21.  $72 - 18x$

22.  $25x + 14$

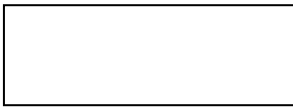
23.  $100x + 150$

24.  $130x - 13$

25. The rectangle shown below has a total area of  $(4x + 36)$  square feet. Factor  $4x + 36$ .



26. The Art Club receives \$10 plus \$2 for every sculpture they sell for a fundraiser. The expression  $2x + 10$  represents the amount the Art Club receives if they sell  $x$  sculptures. Factor  $2x + 10$ .
27. A sidewalk has an area that can be represented by the expression  $(8x + 24)$  feet. Factor the expression  $8x + 24$ .
28. The cost of renting a speedboat can be represented by the expression  $50x + 250$ , where  $x$  is the number of hours it is rented. Factor the expression  $50x + 250$ .
29. The rectangle shown below has an area of  $(28x + 49)$  inches. Factor the expression  $28x + 49$ .



30. Four friends went to a concert and paid \$12 total for parking and \$ $x$  per ticket. The expression  $4x + 12$  represents the total cost paid of all four friends. Factor  $4x + 12$ .
31. Marisa has \$40 in her savings account and plans to save \$ $x$  each month for 5 months. The expression  $5x + 40$  represents the total amount in the account after 5 months. Factor the expression  $5x + 40$ .
32. A square picture frame has a perimeter of  $(20x + 32)$  inches. What is the length of one side of the picture frame?