

Calculate the requested value(s) in each problem.

1. $ABCD$ is a parallelogram. If $m\angle B = 65$, what is the measure of $\angle D$?
2. $ABCD$ is a parallelogram. If $m\angle A = 112$, what is the measure of $\angle C$?
3. $ABCD$ is a parallelogram. If $m\angle B = 75.5$, what is the measure of $\angle C$?
4. $ABCD$ is a parallelogram. If $m\angle B = 72.75$, what is the measure of $\angle C$?
5. $PQRS$ is a parallelogram. $m\angle P = 112$ and $m\angle R = 2y - 14$. What is the value of y ?
6. $WXYZ$ is a parallelogram. $m\angle X = 104$ and $m\angle Z = 3x - 7$. What is the value of x ?
7. $ABCD$ is a parallelogram. $m\angle B = 5x - 8$ and $m\angle D = 64$. What is the value of x ?
8. $JKLM$ is a parallelogram. $m\angle K = 7a + 11$ and $m\angle M = 102$. What is the value of a ?
9. $WXYZ$ is a parallelogram. $m\angle W = 4n + 5$ and $m\angle Y = 3n + 21$. What is the $m\angle W$?
10. $ABCD$ is a parallelogram. $m\angle B = 3y + 9$ and $m\angle D = 4y - 12$. What is the $m\angle B$?
11. $PQRS$ is a parallelogram. $m\angle P = 2x + 10$ and $m\angle Q = 4x + 5$. What is the $m\angle Q$?
12. $WXYZ$ is a parallelogram. $m\angle W = 4x + 2$ and $m\angle X = 3x + 10$. What is the $m\angle X$?
13. $ABCD$ is a parallelogram. $m\angle B = 5k + 5$ and $m\angle C = 113$. What is the value of k ?
14. $RSTU$ is a parallelogram. $m\angle R = 3b + 5$ and $m\angle S = 78$. What is the value of b ?
15. $QRST$ is a parallelogram. $QR = 10$ and $TQ = 6$. What is the perimeter of the parallelogram?
16. $ABCD$ is a parallelogram. $BC = 13$ and $AB = 5$. What is the perimeter of the parallelogram?
17. $ABCD$ is a parallelogram. $AB = x + 5$ and $BC = 4x + 2$ and the perimeter is 200. What is the length of \overline{AB} ?
18. $ABCD$ is a parallelogram. $AB = 2x + 7$ and $BC = 3x + 1$ and the perimeter is 180. What is the length of \overline{BC} ?
19. $ABCD$ is a parallelogram, with the diagonals intersecting at point E . $AE = 4x - 3$ and $EC = 3x + 1$ what is the length of \overline{AC} ?
20. $ABCD$ is a parallelogram, with the diagonals intersecting at point E . $DE = 5x + 2$ and $EB = 4x + 8$ what is the length of \overline{DB} ?