$\qquad$
Show all work neatly, and circle your answers.

Find the midpoint of each pair of coordinates.

1. $(12,43)$ and $(30,57)$
2. $(-24,35)$ and $(-38,50)$
3. $(-8,22)$ and $(16,10)$
4. $(-31,-25)$ and $(-52,-42)$
5. $(18,-33)$ and $(-2,41)$

In each pair of coordinates, $M$ is the midpoint of $\overline{A B}$. Find the coordinates of $B$.
6. $\mathrm{A}(4,10)$ and $\mathrm{M}(20,35)$
7. $A(-6,-23)$ and $M(-15,-17)$
8. $A(-80,51)$ and $M(-42,27)$
9. $A(91,-37)$ and $M(35,-79)$
10. $A(-0.7,-53.9)$ and $M(21.4,-67.6)$

In each pair of coordinates, find the point that is $\frac{2}{3}$ of the way from $A$ to $B$.
11. $A(3,12)$ and $B(6,18)$
12. $A(4,-19)$ and $B(40,2)$
13. $A(-25,-37)$ and $B(-41,28)$

In each pair of coordinates, find the point that is $\frac{3}{4}$ of the way from $B$ to $A$.
14. $A(4,16)$ and $B(12,20)$
15. $A(24,-60)$ and $B(52,-16)$
16. $A(-31,-15)$ and $B(17,22)$

In each pair of coordinates, find the point that is $\frac{2}{5}$ of the way from $A$ to $B$.
17. $A(0,10)$ and $B(5,25)$
18. $A(-35,-15)$ and $B(40,-65)$
19. $A(23,-91)$ and $B(-52,57)$

