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1. What is the equation of a line that is perpendicular and goes through $(2,-4)$ to the line whose equation is $y=2 x$ ?
2. What is the equation of a line that is perpendicular and goes through $(1,-8)$ to the line whose equation is $y=x$ ?
3. What is the equation of a line that is perpendicular and goes through $(-1,-7)$ to the line whose equation is $y=-x$ ?
4. What is the equation of a line that is perpendicular and goes through $(-2,4)$ to the line whose equation is $y=-2 x+1$ ?
5. What is the equation of a line that is perpendicular and goes through $(-1,7)$ to the line whose equation is $y=-x-4$ ?
6. What is the equation of a line that is perpendicular and goes through $(-2,-6)$ to the line whose equation is $y=-2 x+8 ?$
7. What is the equation of a line that is perpendicular and goes through $(-1,2)$ to the line whose equation is $-y=x-4$ ?
8. What is the equation of a line that is perpendicular and goes through $(-6,-5)$ to the line whose equation is $-3 y=2 x$ ?
9. What is the equation of a line that is perpendicular and goes through $(3,-7)$ to the line whose equation is $-3 y-6=-x ?$
10. What is the equation of a line that is perpendicular and goes through $(2,-7)$ to the line whose equation is $2 y-2=x$ ?
11. What is the equation of a line that is perpendicular and goes through $(2,4)$ to the line whose equation is $y+$ $5=2 x$ ?
12. What is the equation of a line that is perpendicular and goes through $(-1,-9)$ to the line whose equation is $x+y=1$ ?
13. What is the equation of a line that is perpendicular and goes through $(-2,9)$ to the line whose equation is $-8+y=-2 x ?$
14. What is the equation of a line that is perpendicular and goes through $(1,0)$ to the line whose equation is $-3+$ $y=x$ ?
15. What is the equation of a line that is perpendicular and goes through $(-1,-9)$ to the line whose equation is $-x-y=-8 ?$
16. What is the equation of a line that is perpendicular and goes through $(-2,-5)$ to the line whose equation is $-5-y=2 x$ ?
17. Given the graph below of graph below of line GY, what is the equation of a line that is perpendicular to $\overline{G Y}$ and goes through $\mathrm{A}(-2,-8)$ ?

18. Given the graph below of graph below of line AE, what is the equation of a line that is perpendicular to $\overline{A E}$ and goes through $\mathrm{P}(-1,-5)$ ?

19. Given the graph below of graph below of line TA, what is the equation of a line that is perpendicular to $\overline{T A}$ and goes through $\mathrm{G}(-1,2)$ ?

20. Given the graph below of graph below of line ME, what is the equation of a line that is perpendicular to $\overline{M E}$ and goes through $\mathrm{P}(3,-6)$ ?

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21. $y=-\frac{1}{2} x-3$
22. $y=x-6$
23. $y=-x-7$
24. $y=\frac{1}{2} x+5$
25. $y=x+8$
26. $y=\frac{1}{2} x-5$
27. $y=x+3$
28. $y=\frac{3}{2} x+4$
29. $y=-3 x+2$
30. $y=-2 x-3$
31. $y=-\frac{1}{2} x+5$
32. $y=x-8$
33. $y=\frac{1}{2} x+10$
34. $y=-x+1$
35. $y=x-8$
36. $y=\frac{1}{2} x-4$
37. $y=2 x-4$
38. $y=x-4$
39. $y=x+3$
40. $y=-3 x+3$
