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|-----|--|------------------------------|
| 1: | $P \vee \neg P, \forall x. P \rightarrow Q(x), \forall x. \neg P \rightarrow Q(x)$ | assumptions |
| 2: | $P \rightarrow Q(m)$ | assumption |
| 3: | $\neg P \rightarrow Q(m)$ | assumption |
| 4: | P | assumption |
| 5: | $Q(m)$ | assumption |
| 6: | $Q(m)$ | $\rightarrow \vdash 2,4,5-5$ |
| 7: | $\neg P$ | assumption |
| 8: | $Q(m)$ | |
| 9: | $Q(m)$ | $\vee \vdash 1.1,4-6,7-8$ |
| 10: | $Q(m)$ | $\forall \vdash 1.3,3-9$ |
| 11: | $Q(m)$ | $\forall \vdash 1.2,2-10$ |
| 12: | $\forall x. Q(x)$ | $\vdash \forall 11$ |

Provided:

x NOTIN P