∴ 1 $\forall x . \forall y . (Horse(x) \wedge Dog(y) \rightarrow Faster(x,y))$
2 $\exists y . [Greyhound(y) \wedge \forall z . (Rabbit(z) \rightarrow Faster(y,z))]$
3 $\forall y . (Greyhound(y) \rightarrow Dog(y))$ (background knowledge)
4 $\forall x . \forall y . \forall z (Faster(x,y) \wedge Faster(y,z) \rightarrow Faster(x,z))$ (background knowledge
5 $\neg \forall x . \forall y . (Horse(x) \wedge Rabbit(y) \rightarrow Faster(x,y))$ (negated cond

Clausal form:

1 $\forall x . \forall y . (Horse(x) \wedge Dog(y) \rightarrow Faster(x,y))$
$\forall x . \forall y . (\neg(Horse(x) \wedge Dog(y)) \vee Faster(x,y))$
$\forall x . \forall y . (\neg Horse(x) \vee \neg Dog(y) \vee Faster(x,y))$
$\therefore \{\neg Horse(x), \neg Dog(y), Faster(x,y)\}$
2 $\{\neg Rabbit(z), Faster(Rocky, z)\}$
3 $\{\neg Greyhound(y), Dog(y)\}$
4 $\forall x . \forall y . \forall z (Faster(x,y) \wedge Faster(y,z) \rightarrow Faster(x,z))$
$\forall x . \forall y . \forall z (\neg(Faster(x,y) \wedge Faster(y,z)) \vee Faster(x,z))$
$\forall x . \forall y . \forall z (\neg Faster(x,y) \vee \neg Faster(y,z) \vee Faster(x,z))$
$\therefore \{\neg Faster(x,y), \neg Faster(y,z), Faster(x,z)\}$
5. $\{Greyhound(Rocky)\}$

Negate the conclusion:

$\neg \forall x . \forall y . (Horse(x) \wedge Rabbit(y) \rightarrow Faster(x,y))$
$\neg \forall x . \forall y . (\neg(Horse(x) \wedge Rabbit(y)) \vee Faster(x,y))$
$\neg \forall x . \forall y (\neg Horse(x) \vee \neg Rabbit(y) \vee Faster(x,y))$
$\exists x \exists y (Horse(x) \vee Rabbit(y) \vee \neg Faster(x,y))$
$Horse(Foo) \vee Rabbit(Bar) \vee \neg Faster(Foo, Bar)$
$\{Horse(Foo)\}$
$\{Rabbit(Bar)\}$
$\{\neg Faster(Foo, Bar)\}$

Resolution:

1	$\{\neg Horse(x), \neg Dog(y), Faster(x,y)\}$	premise
2	$\{\neg Rabbit(z), Faster(Rocky, z)\}$	premise
3	$\{\neg Greyhound(y), Dog(y)\}$	premise
4	$\{\neg Faster(x,y), \neg Faster(y,z), Faster(x,z)\}$	premise
5	$\{Greyhound(Rocky)\}$	premise
6.	$\{Horse(Foo)\}$	premise
7	$\{Rabbit(Bar)\}$	premise
8	$\{\neg Faster(Foo, Bar)\}$	premise
9	$\{\neg Dog(y), Faster(Foo, y)\}$	1, 6
10	$\{\neg Greyhound(y), Faster(Foo, y)\}$	3, 9
11	$\{Faster(Foo, Rocky)\}$	5, 10
12.	$\{\neg Faster(Rocky, z), Faster(Foo, z)\}$	4, 11
13	$\{Faster(Rocky, z)\}$	2, 7
14	$\{Faster(Foo, Bar)\}$	12, 13
15.	$\{\}$	8, 14