

**Solutions** to the ‘Try these’ examples on each worksheet

Translation key for all problems on all five worksheets:

a: Aristotle; b: Berkeley; c: *The Critique of Pure Reason*; d: Descartes; e: *The Ethics*; f: Frege;  
g: Heidegger; h: Hume; i: Leibniz; k: Kant; l: Locke; n: Nietzsche; p: Plato; q: *The Inquiry Concerning Human Understanding*; r: Arendt; s: Spinoza; t: Socrates  
Bx: x is a book; Cx: x is a coherentist; Ex: x is an empiricist; Ix: x is an idealist; Mx: x is a materialist; Px: x is a philosopher; Rx: x is a rationalist  
Bxy: x is bigger than y; Dxy: x is more difficult to read than y; Lxy: x likes y; Mxy: x is read more widely than y; Oxy: x is more original than y; Pxy: x plays billiards with y; Rxy: x respects y; Sxy: x studies y; Wxy: x wrote y  
Lxyz: x likes y better than z

Only

6.  $P_n \cdot M_{nd} \cdot (\forall x)[(P_x \cdot M_{xd}) \supset x=n]$
7.  $E_k \cdot R_k \cdot (\forall x)[(E_x \cdot R_x) \supset x=k]$
8.  $E_l \cdot P_l \cdot (\exists x)(R_x \cdot P_x \cdot R_{xl}) \cdot E_b \cdot P_b \cdot (\exists x)(R_x \cdot P_x \cdot R_{xb}) \cdot (\forall x)\{[E_x \cdot P_x \cdot (\exists y)(R_y \cdot P_y \cdot R_{yx})] \supset (x=l \vee x=b)\}$

Except

6.  $P_i \cdot P_b \cdot (\forall x)[(P_x \cdot x \neq i \cdot x \neq b) \supset M_x]$
7.  $P_r \cdot R_{rg} \cdot (\forall x)[(P_x \cdot x \neq r) \supset \sim R_{xg}]$
8.  $(\exists x)\{B_x \cdot \sim S_{nx} \cdot (\forall y)[(P_y \cdot y \neq n) \supset S_{yx}]\}$

Superlatives

6.  $P_s \cdot (\forall x)[(P_x \cdot x \neq s) \supset O_{sx}]$
7.  $B_c \cdot W_{kc} \cdot (\forall x)[(B_x \cdot W_{kx} \cdot x \neq c) \supset M_{cx}]$
8.  $(\exists x)\{B_x \cdot (\exists y)(E_y \cdot W_{yx}) \cdot (\forall z)\{[(B_z \cdot (\exists w)(E_w \cdot W_{wz}) \cdot z \neq x) \supset B_{xz}]\}\}$

At least

6.  $(\exists x)(\exists y)(P_x \cdot P_y \cdot M_{xf} \cdot M_{yf} \cdot x \neq y)$
7.  $(\exists x)(\exists y)(\exists z)(P_x \cdot P_y \cdot P_z \cdot M_{xf} \cdot M_{yf} \cdot M_{zf} \cdot x \neq y \cdot x \neq z \cdot y \neq z)$
8.  $(\exists x)(\exists y)(\exists z)(\exists w)(I_x \cdot I_y \cdot I_z \cdot I_w \cdot S_{xc} \cdot S_{yc} \cdot S_{zc} \cdot S_{wc} \cdot x \neq y \cdot x \neq z \cdot x \neq w \cdot y \neq z \cdot y \neq w \cdot z \neq w)$

At most

6.  $(\forall x)(\forall y)[(P_x \cdot E_x \cdot R_x \cdot P_y \cdot E_y \cdot R_y \cdot P_z \cdot E_z \cdot R_z) \supset x=y]$
7.  $(\forall x)(\forall y)(\forall z)[(P_x \cdot R_{bx} \cdot P_y \cdot R_{by} \cdot P_z \cdot R_{bz}) \supset (x=y \vee x=z \vee y=z)]$
8.  $(\exists x)(E_x \cdot L_{xd}) \cdot (\forall x)(\forall y)(\forall z)[(E_x \cdot L_{xd} \cdot E_y \cdot L_{yd} \cdot E_z \cdot L_{zd}) \supset (x=y \vee x=z \vee y=z)]$