

Philosophy 1102

Department of Philosophy
Instructor: Richard Johns

Answers to Problem Set 1

[Total: 50 marks]

1. [14 total marks -- 1 mark off for each error.]

- (i) Raman saw a rat in a park somewhere in Burnaby.
- (ii) Devi was (=) Helen's maid of honour
- (iii) Alex is taller than Betty's grandmother. (Oops!)
- (iv) Mike's wife is (=) Wilson's mother.

[Marks can be deducted for annotating too much.]

2. [1/2 mark each, 6 total]

SameCol(a, c)

1. BackOf(c, a)

2. $c = e$

3. SameRow(c, d)

4. LeftOf(e, d)

5. Dodec(a)

6. Cube(d)

7. Between(c, d, b)

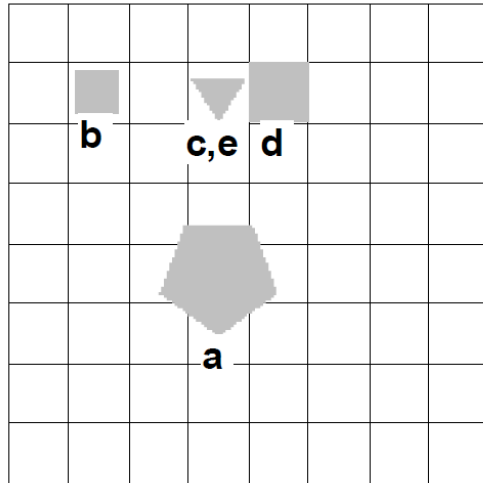
8. Medium(d)

9. Adjoins(d, c)

10. Tet(c)

11. RightOf(a, b)

12. Small(c)



Notes

- c/e is a small tet, back of a and in the same column as a.
- d is a medium cube, right of and adjoining c/e.
- b can be anything that is left of c, and in the same row as c.

3. [5 marks for world shown, or similar]

4. [2 marks each]

- (i) Surgeon(mother(rachel))
- (ii) Friend(mother(rachel), george)
- (iii) mother(george) = mother(alice)
- (iv) Lazy(bff(mother(alice)))

5. [2 marks each]

- (i) Rachel is Fred's mother
- (ii) Alice's maternal grandmother is lazy.
- (iii) Alice is Fred's friend
- (iv) Alice's best friend is taller than her mother's best friend.

6. [2 marks each for standard form, 1 for valid/invalid]

(i) **Invalid**

1. A dog is vicious if its owner mistreats it.
2. Your puppy is vicious

∴ You are mistreating your puppy

(If you think the argument is valid, then consider the parallel argument: Sally is female if she's pregnant. Sally is female. Therefore Sally is pregnant.)



(ii) **Valid**

- All ostriches are birds
All birds lay eggs

All ostriches lay eggs

(iii) **Invalid**

1. If scientists were always right, then they could be trusted.
2. Scientists are very often wrong.

∴ Scientists cannot be trusted

N.B. Premise 1 doesn't say whether scientists who *aren't* always right can be trusted. (And it's common sense that even trustworthy people generally aren't infallible.)

Also, compare with:

1. If cars never crashed, then they could be trusted.
2. Cars very often crash.

∴ Cars cannot be trusted

Is it true that "cars very often crash"? It depends on what you mean. In Vancouver, there are (on average) 22 car crashes per day that cause injury or death. But individual cars rarely crash.