## Indicate whether the following arguments are deductive or inductive.

1. No triangle is a square because all triangles have three sides and squares have four sides.

- 2. Since more than half of all automobile accidents involve drivers under twentyfive, it follows that drivers under twenty-five are probably a greater driving risk than those older than twenty-five.
- 3. Smith missed work today. He must be ill because in the past he's only missed work when he's been ill.
- 4. The chances of rolling a five with a die are one in six.
- 5. The presidential candidate that Michigan selects usually indicates the one who'll be elected. So, it's safe to say, "As Michigan goes, so goes the nation."
- 6. Every class I've taken so far has had an even male-female distribution in it. It's obvious, then, that the student population of this school is evenly divided between males and females.

7. If the president stands for re-election, he'll surely be elected. Anyone who thinks the president won't run again just doesn't understand politics or political ambition. So, it's clear who the next president will be: the present incumbent.

8. Sandy was either present or she knew someone who was present. If she was present, then she knows more than she's admitting. If she knew someone who was present, then she knows more than she's admitting. Either way, Sandy knows more than she's admitting.

9. The chances that there are atmospheric conditions similar to earth's elsewhere in the universe are very high. So, extra-terrestrial life probably exists.

10. This argument is valid because its premises logically entail its conclusion, and any argument whose premises logically entail its conclusion is valid.

## Classify the following statements as either Deductively Valid or Inductively Strong, Weak or Worthless.

(a) No one who is not a member will be admitted. I am not a member, so I'll not be admitted.

(b) My nose itches. So, I'm probably going to have a fight.

(c) My last two Mazdas have all performed well, so I'm sure that the next Mazda I buy will perform well too.

(d) Brutus says that Caesar was ambitious and Brutus was his friend and he is an honourable man. So, Caesar was, most probably, ambitious.

(e) The weatherman said that a low-pressure front is moving into the area. The sky is overcast. I see people in the streets with umbrellas. Therefore, it will rain.

(f) Spending long periods in the sun makes one highly intelligent. Queenslanders spend long periods in the sun. So, Queenslanders are highly intelligent.

(g) One is a lucky number. So is three. So, probably, all odd numbers between 0 and 10 are lucky.

(h) It is so my turn to bat! After all I own it.

(i) She is either honest or a fool. She's no fool. So, she must be honest.

(j) If I owned all the gold in England then I'd be a wealthy man. I don't own all the gold in England, so, I'm not a wealthy man.

(k) Oh no! It's raining. Now my wedding will be ruined.

(1) Native-Americans get all sorts of financial help and aid. They are far luckier than we are.

Circle the letter of the answer that shows the most parallel relationship.

MONET: VAULTBOW. RESPECTBEAVER. INDUSTRIOUSNESS(A) box: jewellery(A) smile: disagreement(A) elephant: stupidity(B) ascend: descend(B) peace: handshake(B) owl: hearing(C) attic: trunk(C) applause: approval(C) cheetah: carnivorous(D) clothes: closet(D sit: down(D) fox: guileIMMATURE: OLDKNOT: NOTELEPHANT: HERD
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IMMATURE: OLD KNOT: NOT ELEPHANT: HERD
(A) candle: frost (A) require: acquire (A) fox: vixen
(B) frequently: always (B) penicillin: sell (B) wolf: pack
(C) deep: fathomless (C) knead: need (C) bear: den
(D meticulous: inexact (D) subscribe: subsist (D) kangaroo: panda
ARCHAEOLOGIST: DIG DO: DONE MASSIVE: SLIGHT
(A) botanist: arboretum (A) know: knew (A) mellow: relaxed
(B) geography: land (B) go: went (B) large: huge
(C) chemistry: laboratory (C) come: come (C) dominant: superior
(D) biologist: life (D) run: ran (D) lavish: sparse
TEENAGER: GROWN-UP AUTUMN: SUMMER QUARRY: MARBLE
(A) infant: baby (A) afternoon: morning (A) silver: lode
(B) boy: girl (B) pre-game: halftime (B) mine: copper
(C) college: preparatory (C) May: November (C) prey: agate
(D) adolescent: adult (D) brunch: lunch (D) cutter: granite
ENTHUSIAST: DEVOTEE PRACTICE: SUCCESS COMB: TOOTH
(A) brink: precipice (A) study: rehearsal (A) brush: bristle
(B) follower: leader (B) disobedience: punishment (B) rake: leaf
(C) angry: unhappy (C) dismal: failure (C) prong: pitchfork
(D) clean: messy (D) cough: cold (D) tine: fork
POLICE OFFICER: BADGE RACK: TORTURE MUNCH: LUNCH
(A) fire fighter: hose (A) flog: lash (A) many: lands
(B) cap: nurse (B) garrotte: strangle (B) eat: light
(C) general: stars (C) brandish: gun (C) hunch: trunk
(D) doctor: syringe (D) chair: electric (D) horrid: torrid
IDEA: VAGUE BAKER: COOKIES DESERT: DESSERT
(A) speech: refined (A) anvil: blacksmith (A) cloths: clothes
(B) photograph: develop (B) chef: cutlery (B) council: counsel
(C) statement: unclear (C) vintner: wine (C) accede: exceed
(D) reception: static (D) chocolate: cacao (D) conscience: conscious
NOVELIST: FICTION ADD: MULTIPLY
(A) opinion: editorialist
(B) plagiarist thesis (B) subtract divide
(C) playwright: drama
(D) report: journalist (D) decrease: increase

## FOR EACH OF THESE ARGUMENTS, WRITE:

- A. What exactly is being claimed?
- B. Is evidence relevant sufficient?
- C. Describe argument type being used (analogy or generalisation)
- D. Any fallacy or mistake in reasoning
- E. Any relevant comment about reasoning used.

1. Perhaps one of the most staggering of the new concepts is that which makes such operations as alchemy plausible. Accepting the premise that there can be interaction between the mind and the physical world, it becomes apparent that any experiment must include the experimenter as one of its elements. It has long been observed, for example, that the expectation of success has a great deal to do with one's scores in ESP card guessing. those who have no faith in ESP seldom score better than what is predictable by chance alone.

From this it seems to follow that the alchemist himself must be considered as one of the critical ingredients of the process. With a dedicated and expectant operator, unconsciously establishing a link between the mental and physical aspects of the universe, the transmutation of a base metal into gold no longer seems quite so incredible.

2. Dr James H Sammons, the highest-ranking staff physician of the American Medical Association, told a Congressional subcommittee last month that hysterectomy was justified when the uterus was healthy but the woman feared cancer or pregnancy. However, the Canadian group rejected these reasons, saying there were far less hazardous ways then hysterectomy to sterilise a woman or prevent uterine cancer.

"If you take out every uterus at age 13, you would prevent all uterine cancers," Dr Frank Dyck the director of the Canadian project, observed. "It's not a very logical argument."

3. Feminists constitute only a small percentage of the total number of American women. Their ideas represent the radical fringe of current thinking. Their lifestyles conflict significantly with traditional American values. In the light of these considerations, it hardly seems necessary to take their claims for equal rights seriously. Right-thinking Americans will ignore their demands.