



CMSC330 Falll 26 Quiz 1

Proctoring TA: _____ Name: _____

Section Number: _____ UID: _____

Problem 1: OCaml Expressions

[Total 12 pts]

Write an expression that does the following. You cannot use type annotations or use the List Module. Try and make the expression as short as possible:

(a) Binds an even integer to a variable which you then use in a multiplication expression

[4 pts]

(b) An If expression that has type int

[4 pts]

(c) A function that has type `bool -> 'a -> string`

[4 pts]

Problem 2: Semantics

[Total 8 pts]

Consider the following Semantic Rules using OCaml as the metalangauge:

$$\frac{v = n \bmod 4}{n \Rightarrow v}$$

$$\frac{a \Rightarrow d \quad b \Rightarrow e \quad c = (e > d \ \&\& \ e < d * d)}{a ? b \Rightarrow c}$$

What does the following expression evaluate to?

`7 ? 14`