

## Grades

- “Parameterized” tests in rspec-style frameworks describes, its used to form data structure each it must have unique composite name

### fromGrade

- Elementary syntax of match/case: basePointsWithSwitch guard capability: modifierPoints

- Better to data-drive here: basePointsDataDriven

### toGrade

- guard pattern can be more complex

- nesting more logic inside case can be confusing

## FizzBuzz

- standardIf: perhaps easier to write, 1-3 divs, 53% 3

- cachedIf: always 2 divs

- patternMatch: always 2 divs, tuple unapply, no guards

## Types

- soundOf: match/case sensitive to type

- usually wrong if type is only discriminator

- use polymorphism instead: trait Soundable

- problems are caught at compile time not runtime

## Recursive

- adding node values in binary tree

- simpler if parameter is option

- either way pattern match is clearer

- especially patternMatchSum: see how works later

## PartialFunction

- total function: returns value for every input

- partial function: cannot produce value for some inputs

- function defs in Scala are syntactic sugar

- evaluate to instances of FunctionX

- partial functions override PartialFunction

- isDefinedAt and apply can be combined with

- pattern-matching sugar

## Unapply

- recalls; don't hate me

- draw attention to test line 27

- no unapply: lots of logic

- add unapply to companion object
  - must accept single parameter
  - must return `Option[(A, B, ...)]`
  - means one unapply per type per object
  - can call directly
- when used in match, logic much more compact
- case class gives free unapply
- possible but not recommended: other unapplies
  - single non-boolean attribute: `Option[A]`
  - boolean attribute: `Boolean`
  - too verbose for effect
  - non-extractor unapplies confusing