Chapter 11

3. a) reflex based: the computer program may already have a translated listing of words from one language to the other. Thus, German is outputed given English input.

b) reflex based: the thermostat has been programed to respond to temperature change in the house. This is a predetermined response to the given input, which in this case is temperature.

c) goal based: Treating the pilot as the agent, he/she has to make deliberate decisions, making the best choices of what tasks to perform and in what order. Finally, after completeting these tasks, the "goal" of landing the plane safely will be attained.

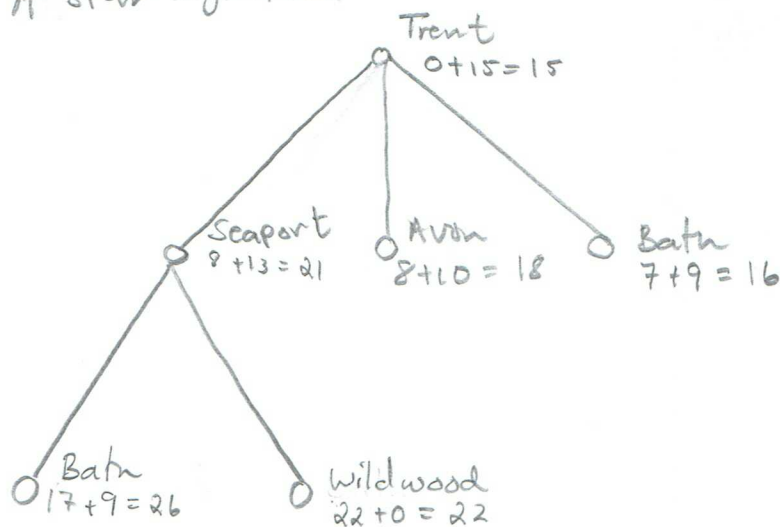7. a) performance oriented.
   b) Simulation oriented.
   c) Performance oriented.
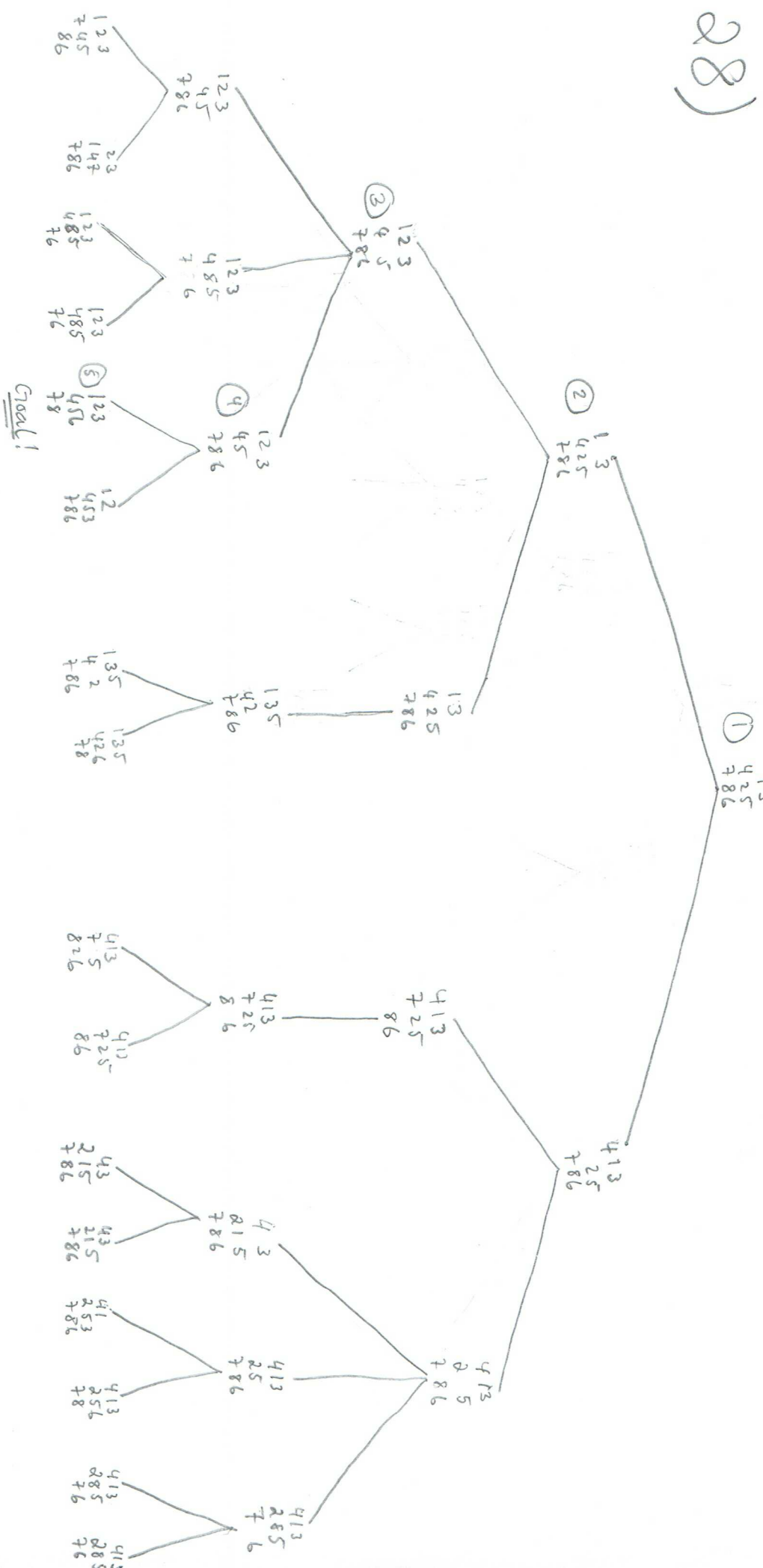   d) Simulation oriented.
   e) Performance oriented.

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36.   A star algorithm

Trent
$0+15=15$

Seaport
$8+13=21$

Avon
$8+10=18$

Bath
$7+9=16$

Bath
$17+9=26$

Wildwood
$22+0=22$

Goal!

① ② ③ ④ ⑤

47.

Start state

$7x + 3 = 3x - 5$

Addition property for equality

$7x + 3 - 3 = 3x - 5 - 3$

simplify

$7x = 3x - 8$

Addition property for equality

$7x - 3x = 3x - 8 - 3x$

simplify

$4x = -8$

division property for equality

$\dfrac{4x}{4} = \dfrac{-8}{4}$

simplify

$x = -2$

Intermediate States

Goal state