**Zadání 1. úkolu do předmětu IZU**

Jméno:

Příjmení:

login:

Pomocí metody A\* najděte nejkratší cestu v bludišti složeném z pravidelných buněk, kde prázdné buňky reprezentují volný prostor a překážky mají hodnotu „1“. Start je označen „S“ a cíl „C“. Po každém kroku vypište nové hodnoty zásobníků Open a Closed, nezapomeňte připsat celkové ohodnocení uzlu (s přesností na dvě desetinná místa). Do tabulky s ohodnocením uzlů zapisujte cestu do aktuálního uzlu „g“, heuristiku „h“ a celkovou cenu cesty „f“. Vyplňte, dokud nenaleznete cíl, ale maximálně 30 hodnot. Na konci napište nalezenou cestu. Cenu přechodu mezi dvěma buňkami i heuristiku počítejte jako přímou vzdálenost dvou buněk. Uzly generujte zleva doprava a shora dolů, uvažujte 8-okolí buňky, velikost strany buňky je rovna jedné. Mapu můžete (doporučuji) použít pro zakreslování rozgenerovávaných uzlů. Výslednou cestu zapište do tabulky Cesta.

Uzel: ([řádek, sloupec], ohodnocení)

Start: ([5, 2], 6,32)

Cíl: ([3, 8] , X)

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