(1) (2) $\partial s = 8$, $\partial t = 2$, $\partial x = 1$, $\partial y = 1$

$p = \sqrt{128} \approx 11.3$

$\log_2(11.3) \approx 3.4$

So, level 3 would be used

(b) From level 1: $T(1,0) = 3/4$

level 2: $T(1,0) = 1$

Interpolate: $3/4\,(3/4) + (1/4)(1) = 13/16$

(2)

1/4	3/4
3/4	1/4

1/2

plus original level

(3) Total $= A + A/4 + A/16 \ldots$

$= \sum_{i=0}^{\infty} (A/4^i) = A \sum 1/4^i = 4/3\,A$

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