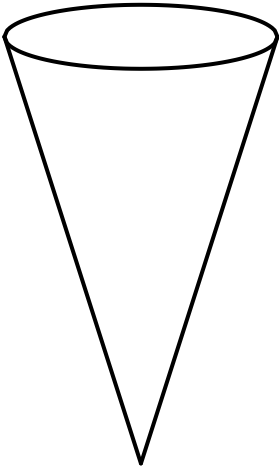


Applications of Differentiation

Time: 0.00 seconds



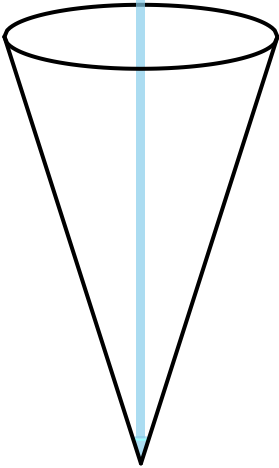
Height = 0 cm

Rate at which height rises = undefined

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 0.15 seconds



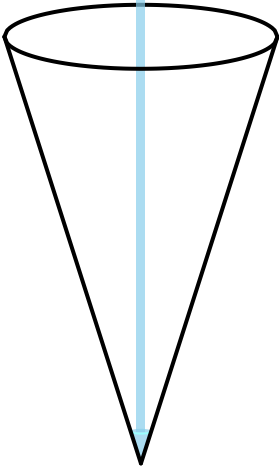
Height = 1.20 cm

⬆ Rate at which height increases = 2.6516 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 0.30 seconds



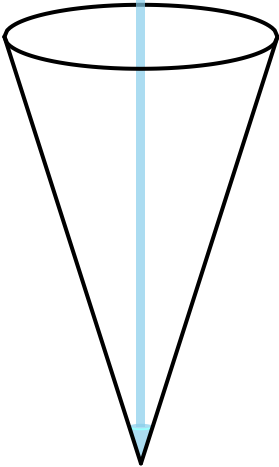
Height = 1.51 cm

♦ Rate at which height increases = 1.6704 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 0.45 seconds



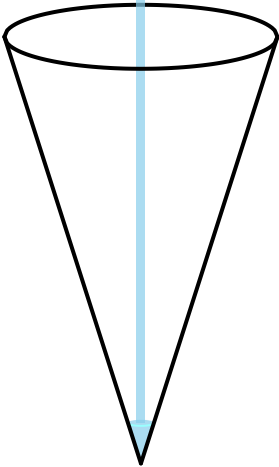
Height = 1.73 cm

↕ Rate at which height increases = 1.2748 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 0.60 seconds



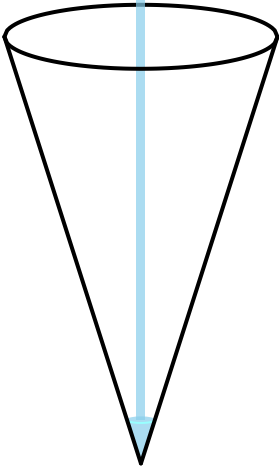
↑ Height = 1.91 cm

↓ Rate at which height increases = 1.0523 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 0.75 seconds



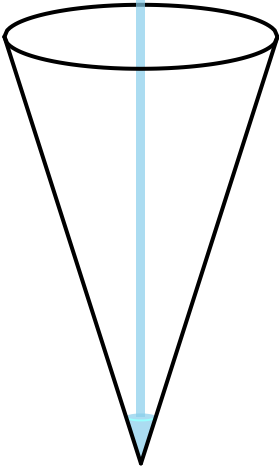
↑ Height = 2.05 cm

↓ Rate at which height increases = 0.9068 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 0.91 seconds



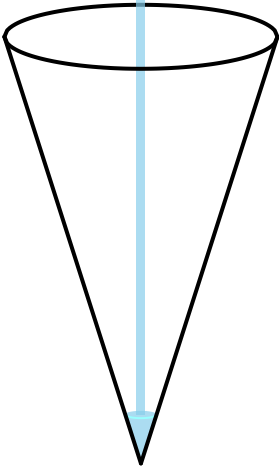
↑ Height = 2.18 cm

↓ Rate at which height increases = 0.8031 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 1.06 seconds



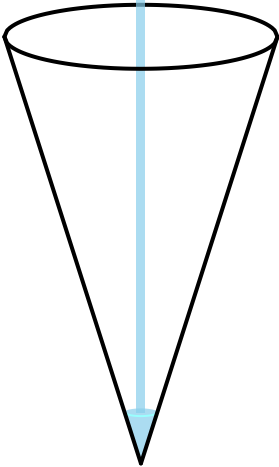
↑ Height = 2.30 cm

↓ Rate at which height increases = 0.7246 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 1.21 seconds



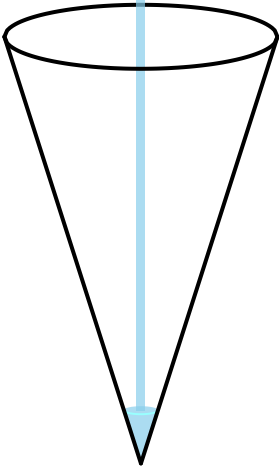
↑ Height = 2.40 cm

↓ Rate at which height increases = 0.6629 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 1.36 seconds



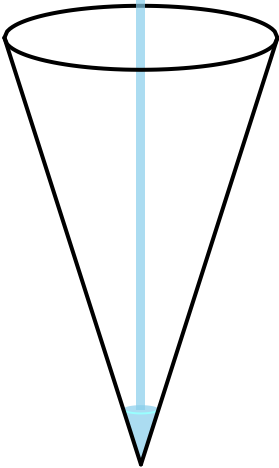
↑ Height = 2.50 cm

↓ Rate at which height increases = 0.6128 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 1.51 seconds



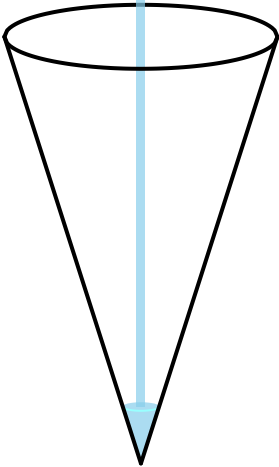
↑ Height = 2.59 cm

↓ Rate at which height increases = 0.5713 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 1.66 seconds



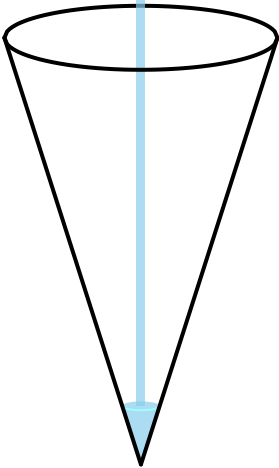
↑ Height = 2.67 cm

↓ Rate at which height increases = 0.5361 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 1.81 seconds



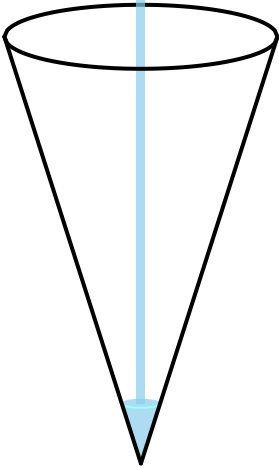
↑ Height = 2.75 cm

↓ Rate at which height increases = 0.5059 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 1.96 seconds



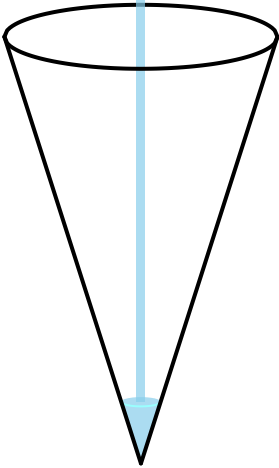
↑ Height = 2.82 cm

↓ Rate at which height increases = 0.4796 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 2.11 seconds



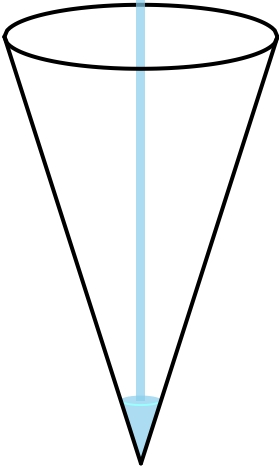
↑ Height = 2.89 cm

↓ Rate at which height increases = 0.4565 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 2.26 seconds



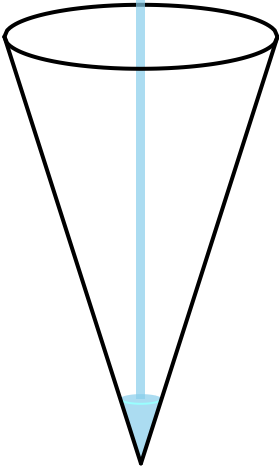
↑ Height = 2.96 cm

↕ Rate at which height increases = 0.4360 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 2.41 seconds



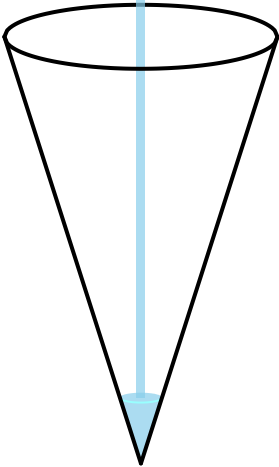
↑ Height = 3.02 cm

↓ Rate at which height increases = 0.4176 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 2.56 seconds



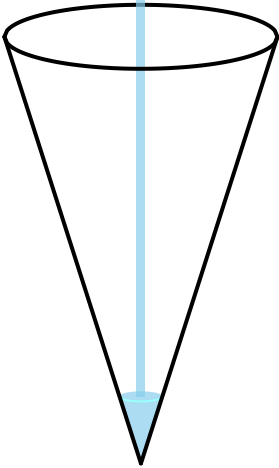
↑ Height = 3.09 cm

↓ Rate at which height increases = 0.4011 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 2.72 seconds



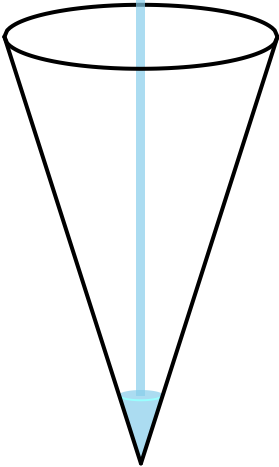
↑ Height = 3.15 cm

↓ Rate at which height increases = 0.3861 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 2.87 seconds



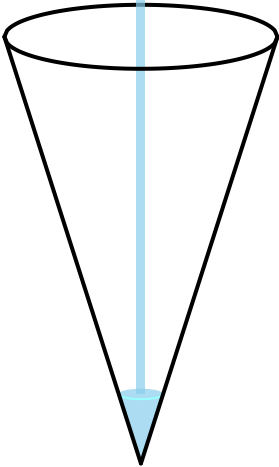
↑ Height = 3.20 cm

↓ Rate at which height increases = 0.3724 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 3.02 seconds



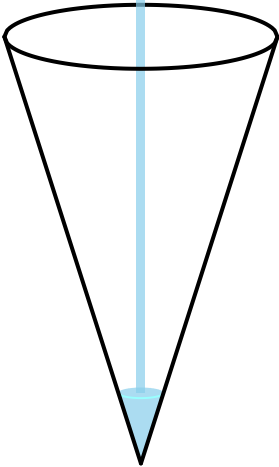
↑ Height = 3.26 cm

↓ Rate at which height increases = 0.3599 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 3.17 seconds



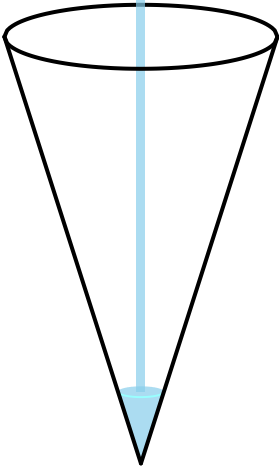
↑ Height = 3.31 cm

↓ Rate at which height increases = 0.3484 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 3.32 seconds



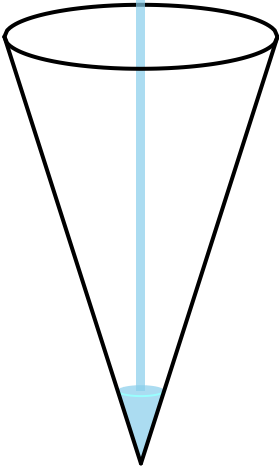
↑ Height = 3.36 cm

↓ Rate at which height increases = 0.3377 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 3.47 seconds



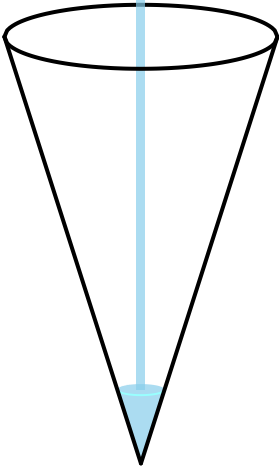
↑ Height = 3.41 cm

↓ Rate at which height increases = 0.3279 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 3.62 seconds



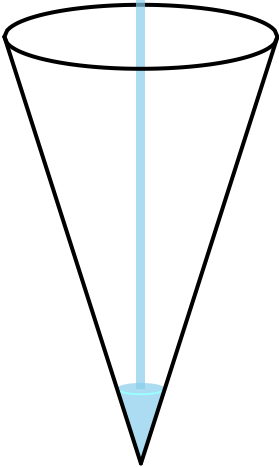
↑ Height = 3.46 cm

↓ Rate at which height increases = 0.3187 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 3.77 seconds



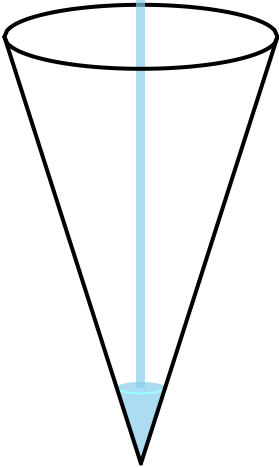
↑ Height = 3.51 cm

↓ Rate at which height increases = 0.3101 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 3.92 seconds



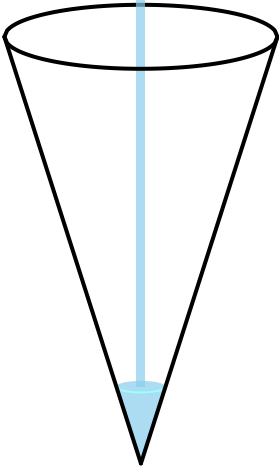
↑ Height = 3.56 cm

↓ Rate at which height increases = 0.3021 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 4.07 seconds



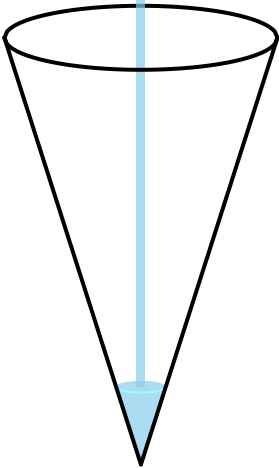
↑ Height = 3.60 cm

↓ Rate at which height increases = 0.2946 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 4.22 seconds



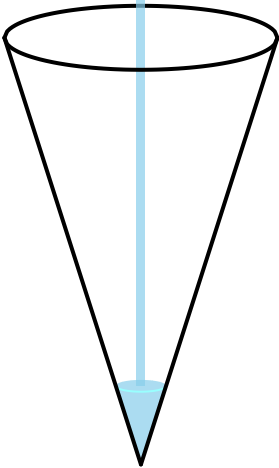
↑ Height = 3.64 cm

↕ Rate at which height increases = 0.2876 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 4.38 seconds



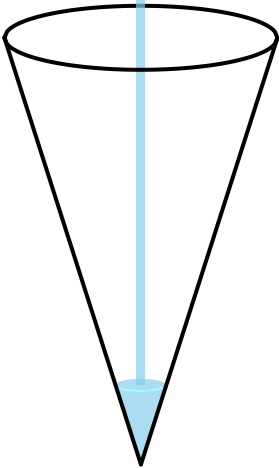
↑ Height = 3.69 cm

↕ Rate at which height increases = 0.2809 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 4.53 seconds



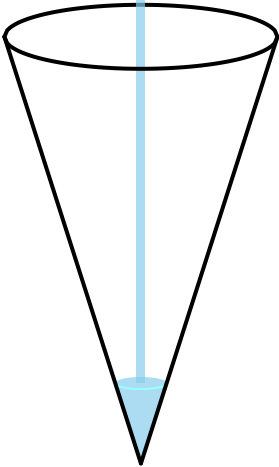
↑ Height = 3.73 cm

↕ Rate at which height increases = 0.2746 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 4.68 seconds



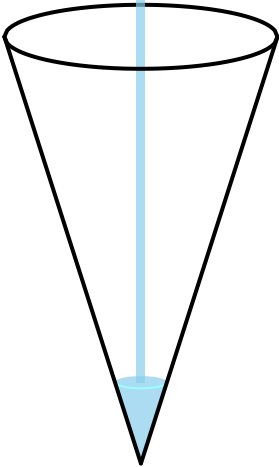
↑ Height = 3.77 cm

↕ Rate at which height increases = 0.2687 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 4.83 seconds



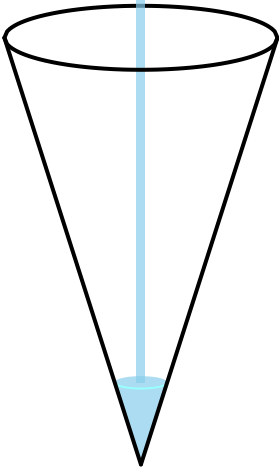
↑ Height = 3.81 cm

↕ Rate at which height increases = 0.2631 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 4.98 seconds



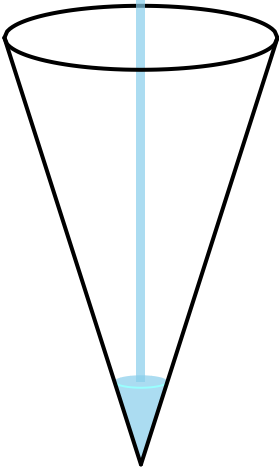
↑ Height = 3.85 cm

↕ Rate at which height increases = 0.2577 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 5.13 seconds



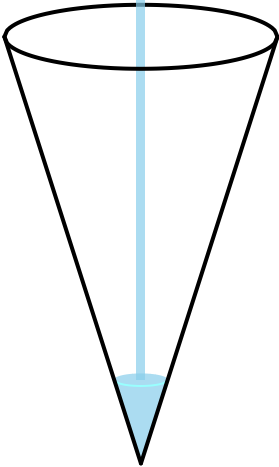
↑ Height = 3.89 cm

↕ Rate at which height increases = 0.2527 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 5.28 seconds



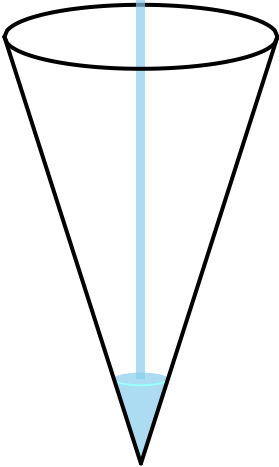
↑ Height = 3.93 cm

↕ Rate at which height increases = 0.2478 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 5.43 seconds



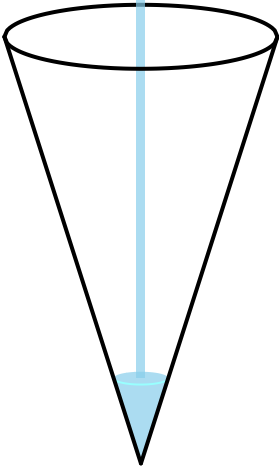
↑ Height = 3.96 cm

↕ Rate at which height increases = 0.2432 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 5.58 seconds



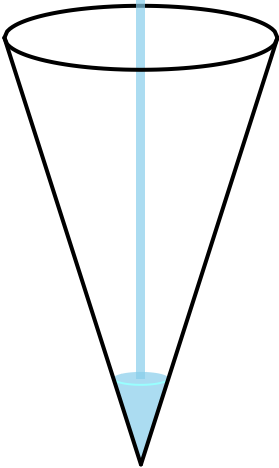
↑ Height = 4.00 cm

↕ Rate at which height increases = 0.2388 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 5.73 seconds



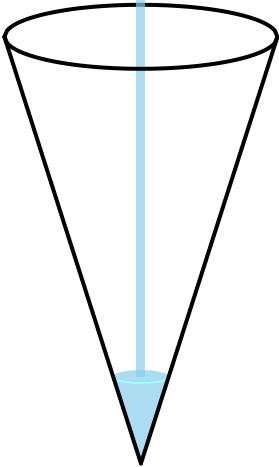
↑ Height = 4.04 cm

↕ Rate at which height increases = 0.2346 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 5.88 seconds



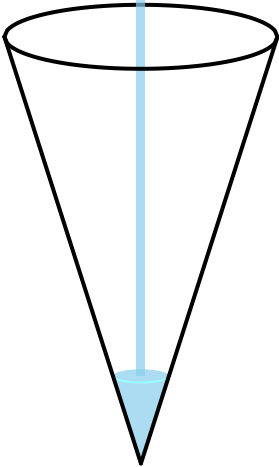
↑ Height = 4.07 cm

↕ Rate at which height increases = 0.2306 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 6.04 seconds



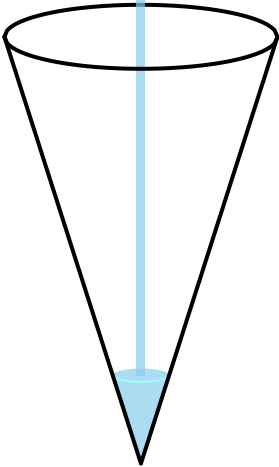
↑ Height = 4.10 cm

↕ Rate at which height increases = 0.2267 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 6.19 seconds



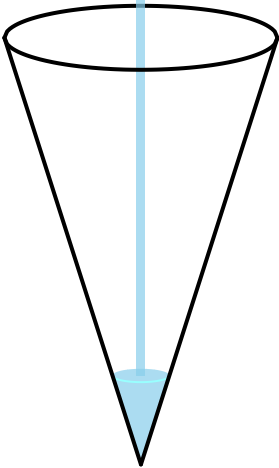
↑ Height = 4.14 cm

↕ Rate at which height increases = 0.2230 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 6.34 seconds



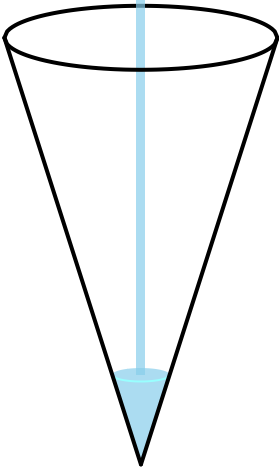
↑ Height = 4.17 cm

↕ Rate at which height increases = 0.2195 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 6.49 seconds



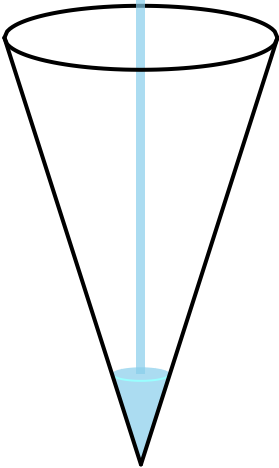
↑ Height = 4.20 cm

↕ Rate at which height increases = 0.2160 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 6.64 seconds



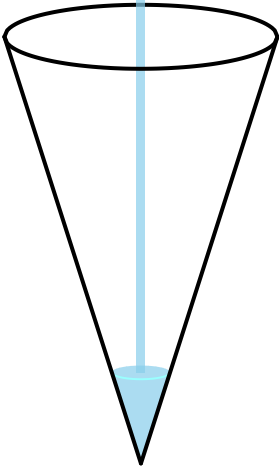
↑ Height = 4.24 cm

↕ Rate at which height increases = 0.2128 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 6.79 seconds



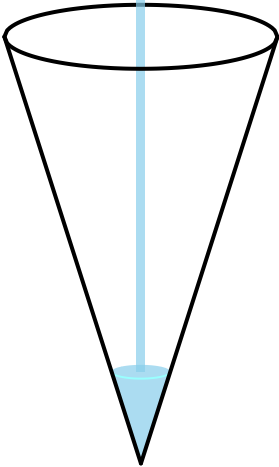
↑ Height = 4.27 cm

↕ Rate at which height increases = 0.2096 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 6.94 seconds



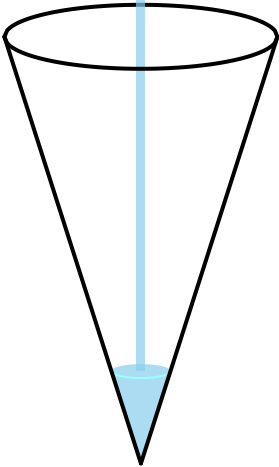
↑ Height = 4.30 cm

↑ Rate at which height increases = 0.2065 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 7.09 seconds



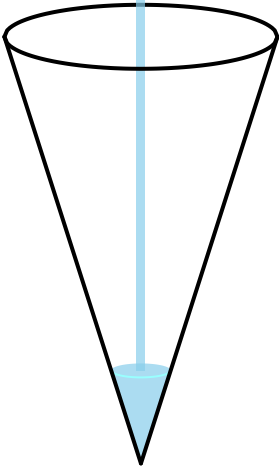
↑ Height = 4.33 cm

↕ Rate at which height increases = 0.2036 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 7.24 seconds



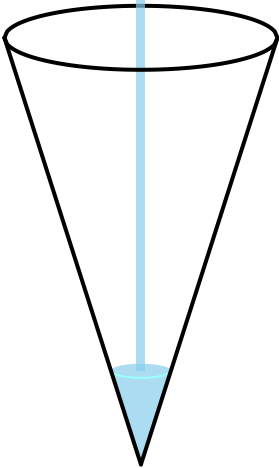
↑ Height = 4.36 cm

↑ Rate at which height increases = 0.2008 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 7.39 seconds



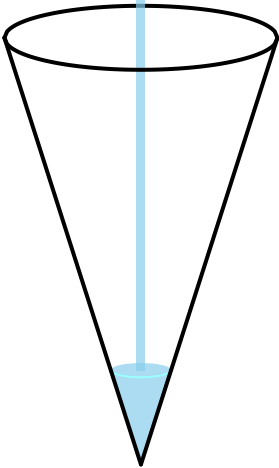
↑ Height = 4.39 cm

↑ Rate at which height increases = 0.1980 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 7.54 seconds



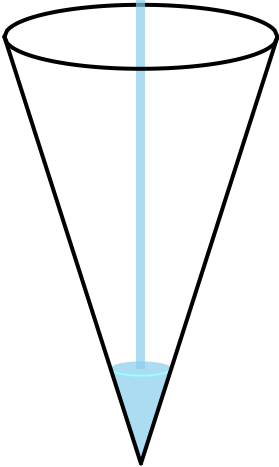
↑ Height = 4.42 cm

↑ Rate at which height increases = 0.1954 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 7.69 seconds



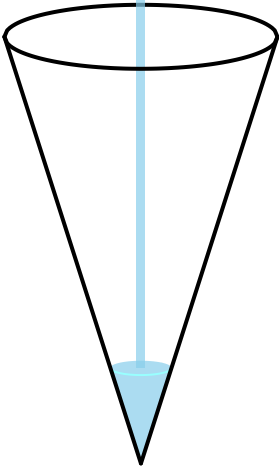
↑ Height = 4.45 cm

↑ Rate at which height increases = 0.1928 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 7.85 seconds



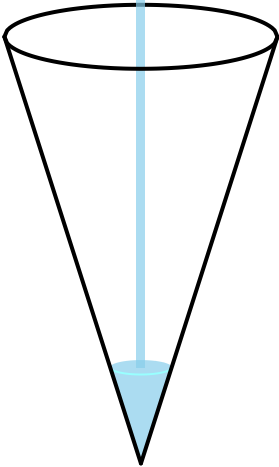
↑ Height = 4.48 cm

↑ Rate at which height increases = 0.1903 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 8.00 seconds



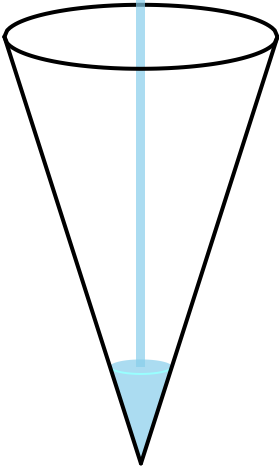
↑ Height = 4.51 cm

↕ Rate at which height increases = 0.1879 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 8.15 seconds



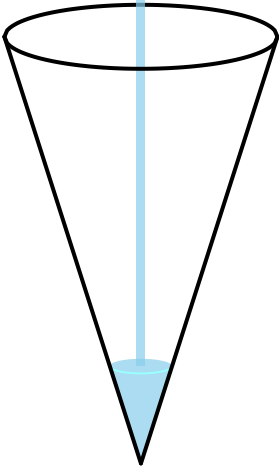
↑ Height = 4.54 cm

↑ Rate at which height increases = 0.1856 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 8.30 seconds



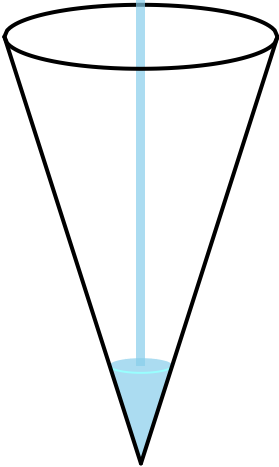
↑ Height = 4.56 cm

↕ Rate at which height increases = 0.1833 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 8.45 seconds



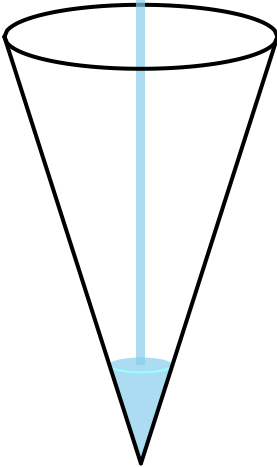
↑ Height = 4.59 cm

↕ Rate at which height increases = 0.1812 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 8.60 seconds



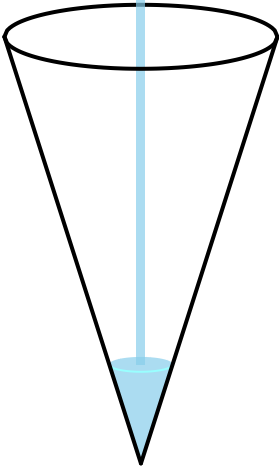
↑ Height = 4.62 cm

↕ Rate at which height increases = 0.1790 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 8.75 seconds



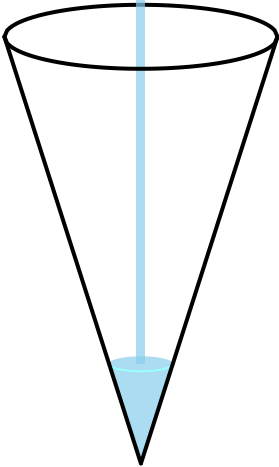
↑ Height = 4.65 cm

↕ Rate at which height increases = 0.1770 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 8.90 seconds



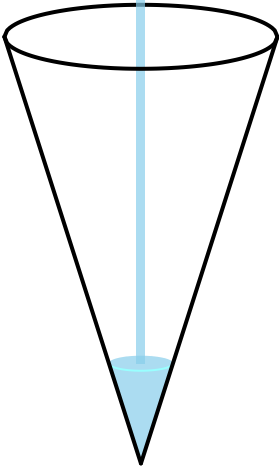
↑ Height = 4.67 cm

↑ Rate at which height increases = 0.1750 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 9.05 seconds



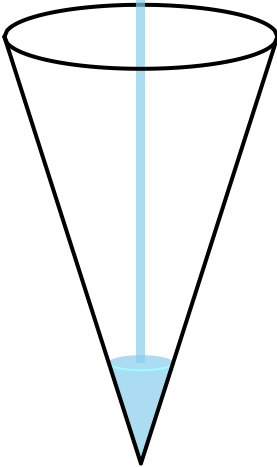
↑ Height = 4.70 cm

↑ Rate at which height increases = 0.1730 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 9.20 seconds



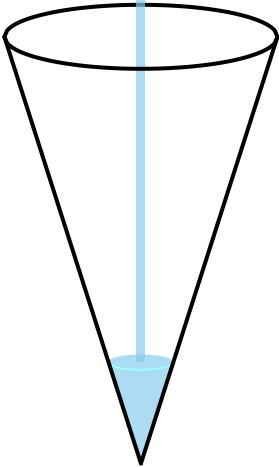
↑ Height = 4.72 cm

↑ Rate at which height increases = 0.1711 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 9.35 seconds



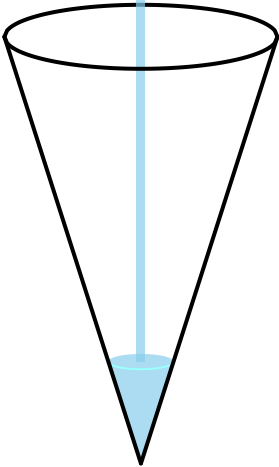
↑ Height = 4.75 cm

↑ Rate at which height increases = 0.1693 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 9.51 seconds



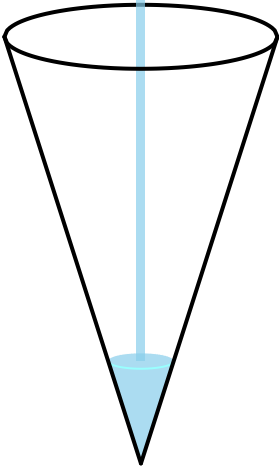
↑ Height = 4.78 cm

↑ Rate at which height increases = 0.1675 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 9.66 seconds



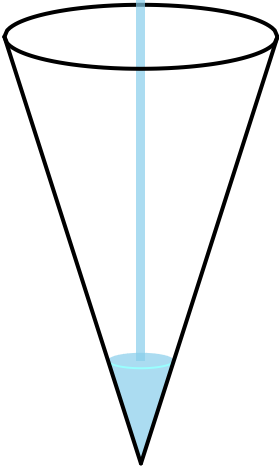
↑ Height = 4.80 cm

↑ Rate at which height increases = 0.1657 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 9.81 seconds



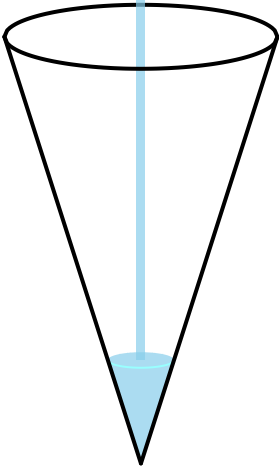
↑ Height = 4.83 cm

↑ Rate at which height increases = 0.1640 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 9.96 seconds



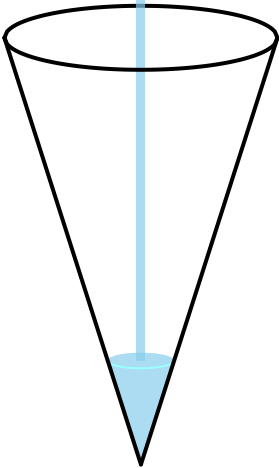
↑ Height = 4.85 cm

↑ Rate at which height increases = 0.1624 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 10.11 seconds



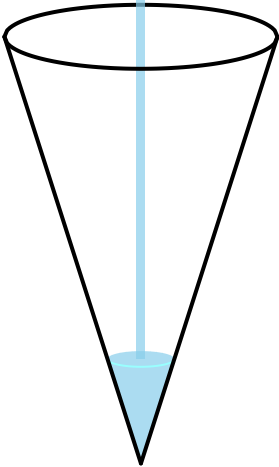
↑ Height = 4.87 cm

↑ Rate at which height increases = 0.1607 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 10.26 seconds



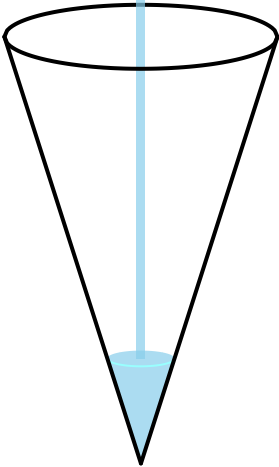
↑ Height = 4.90 cm

↑ Rate at which height increases = 0.1592 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 10.41 seconds



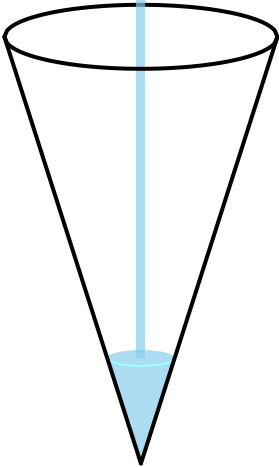
↑ Height = 4.92 cm

↑ Rate at which height increases = 0.1576 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 10.56 seconds



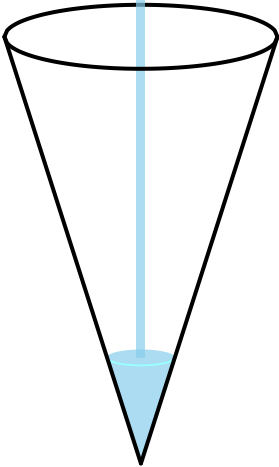
↑ Height = 4.95 cm

↑ Rate at which height increases = 0.1561 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 10.71 seconds



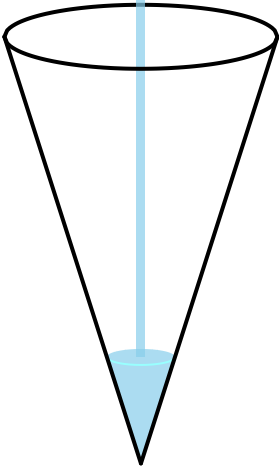
↑ Height = 4.97 cm

↑ Rate at which height increases = 0.1546 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 10.86 seconds



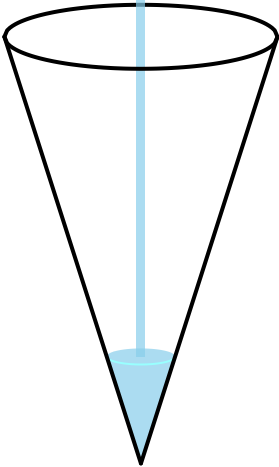
↑ Height = 4.99 cm

↑ Rate at which height increases = 0.1532 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 11.01 seconds



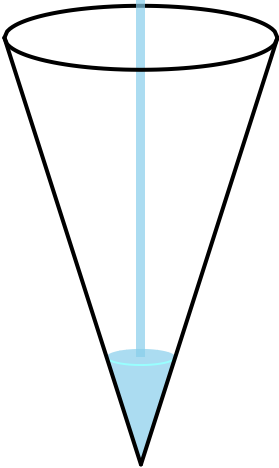
↑ Height = 5.02 cm

↑ Rate at which height increases = 0.1518 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 11.17 seconds



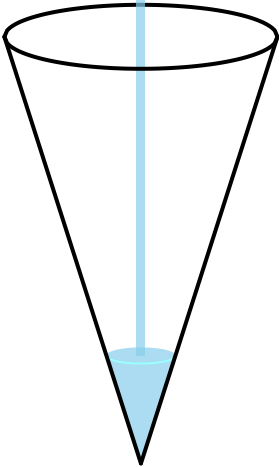
↑ Height = 5.04 cm

↕ Rate at which height increases = 0.1504 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 11.32 seconds



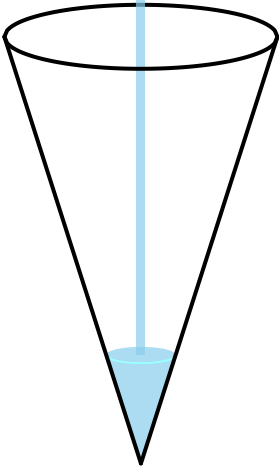
Height = 5.06 cm

Rate at which height increases = 0.1491 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 11.47 seconds



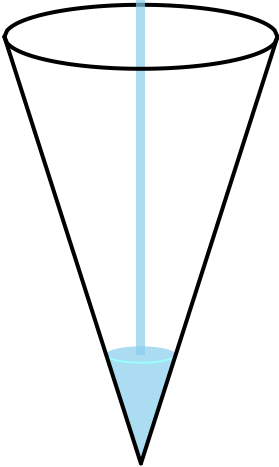
↑ Height = 5.08 cm

↑ Rate at which height increases = 0.1478 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 11.62 seconds



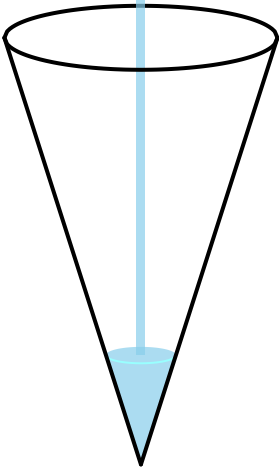
↑ Height = 5.11 cm

↕ Rate at which height increases = 0.1465 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 11.77 seconds



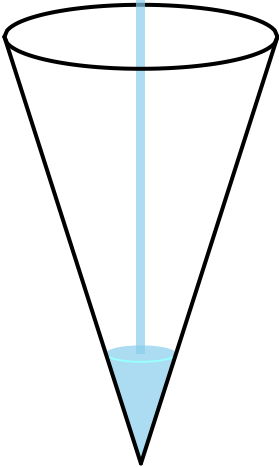
↑ Height = 5.13 cm

↕ Rate at which height increases = 0.1452 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 11.92 seconds



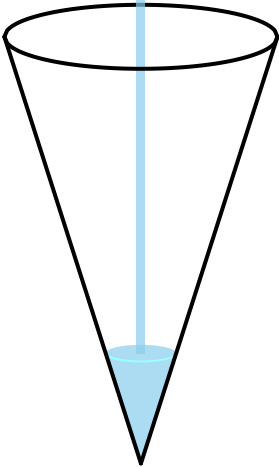
↑ Height = 5.15 cm

↑ Rate at which height increases = 0.1440 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 12.07 seconds



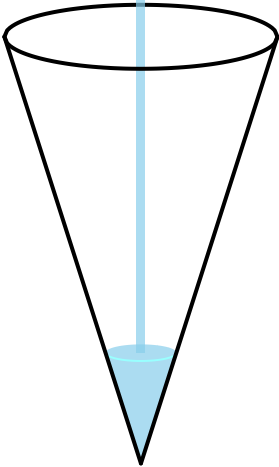
↑ Height = 5.17 cm

↕ Rate at which height increases = 0.1428 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 12.22 seconds



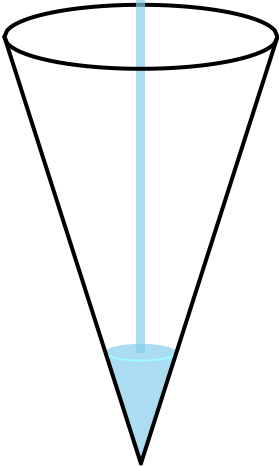
↑ Height = 5.19 cm

↑ Rate at which height increases = 0.1416 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 12.37 seconds



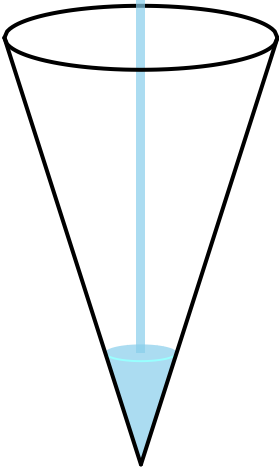
Height = 5.21 cm

Rate at which height increases = 0.1405 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 12.52 seconds



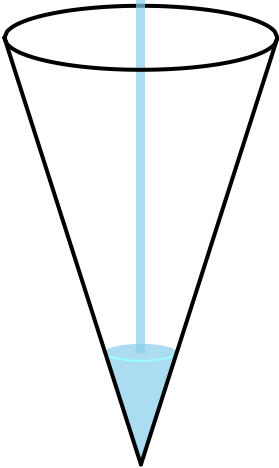
Height = 5.24 cm

Rate at which height increases = 0.1394 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 12.67 seconds



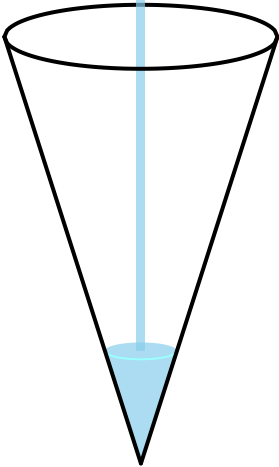
↑ Height = 5.26 cm

↕ Rate at which height increases = 0.1382 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 12.82 seconds



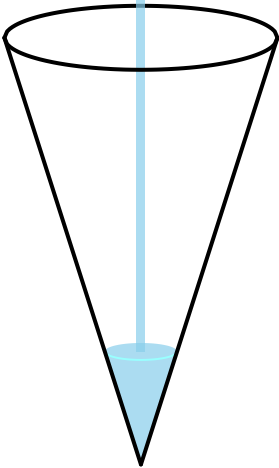
Height = 5.28 cm

Rate at which height increases = 0.1372 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 12.98 seconds



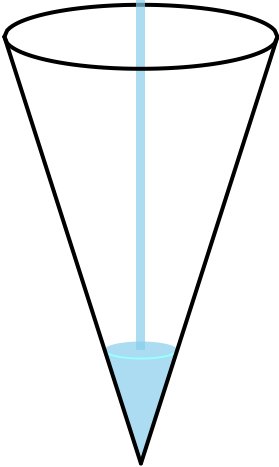
↑ Height = 5.30 cm

↕ Rate at which height increases = 0.1361 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 13.13 seconds



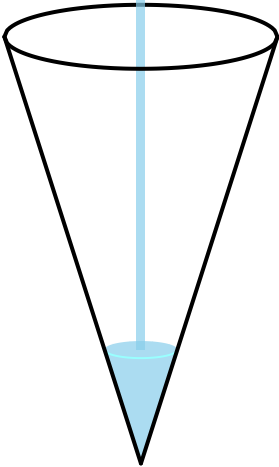
↑ Height = 5.32 cm

↑ Rate at which height increases = 0.1351 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 13.28 seconds



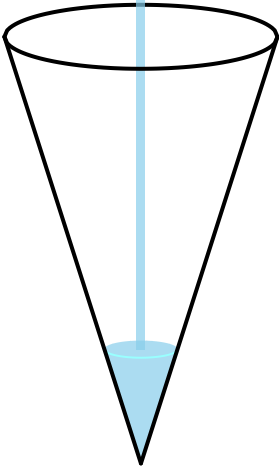
↑ Height = 5.34 cm

↑ Rate at which height increases = 0.1340 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 13.43 seconds



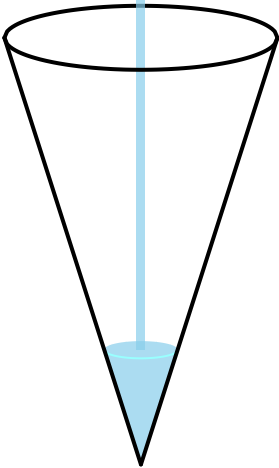
↑ Height = 5.36 cm

↑ Rate at which height increases = 0.1330 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 13.58 seconds



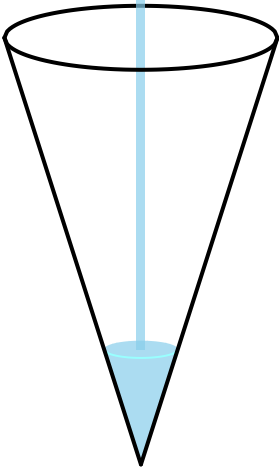
Height = 5.38 cm

Rate at which height increases = 0.1320 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 13.73 seconds



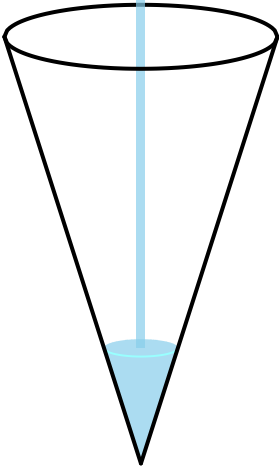
Height = 5.40 cm

Rate at which height increases = 0.1311 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 13.88 seconds



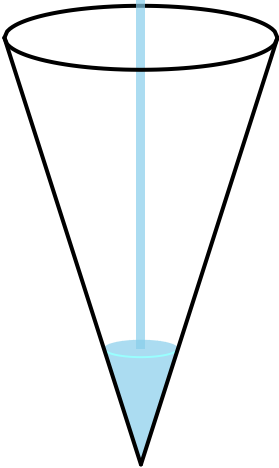
Height = 5.42 cm

Rate at which height increases = 0.1301 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 14.03 seconds



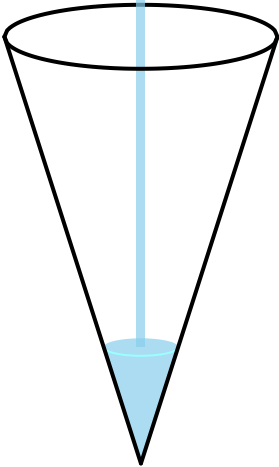
Height = 5.44 cm

Rate at which height increases = 0.1292 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 14.18 seconds



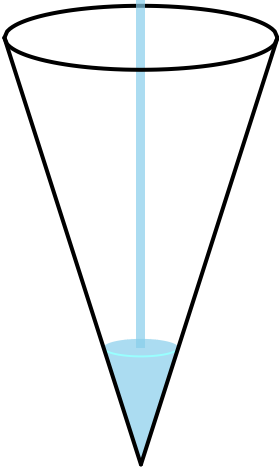
Height = 5.46 cm

Rate at which height increases = 0.1283 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 14.33 seconds



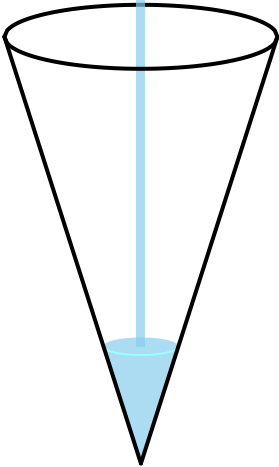
Height = 5.48 cm

Rate at which height increases = 0.1274 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 14.48 seconds



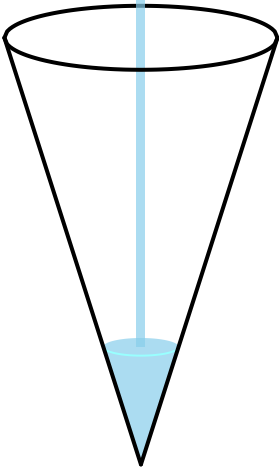
Height = 5.50 cm

Rate at which height increases = 0.1265 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 14.64 seconds



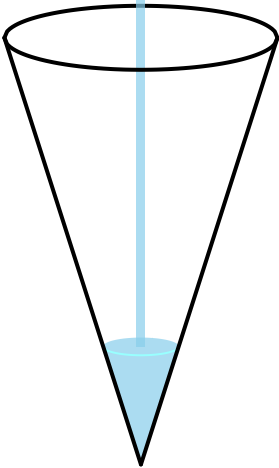
Height = 5.51 cm

Rate at which height increases = 0.1256 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 14.79 seconds



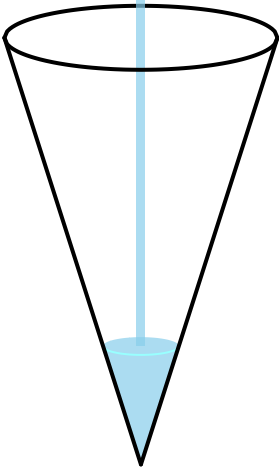
Height = 5.53 cm

Rate at which height increases = 0.1247 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 14.94 seconds



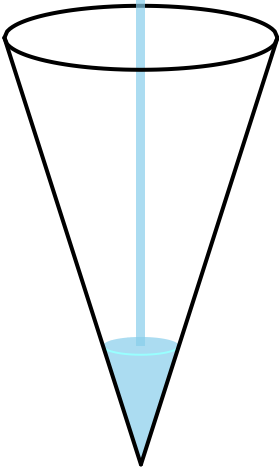
Height = 5.55 cm

Rate at which height increases = 0.1239 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 15.00 seconds



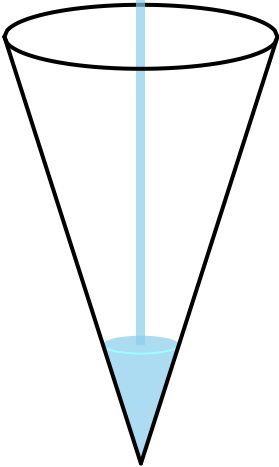
Height = 5.56 cm

Rate at which height increases = 0.1236 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 15.08 seconds



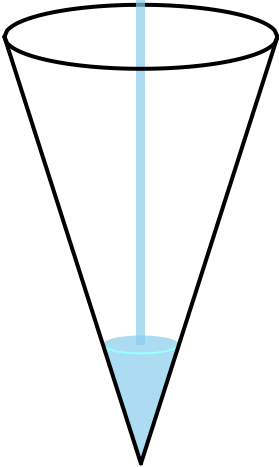
Height = 5.57 cm

Rate at which height increases = 0.1231 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 15.16 seconds



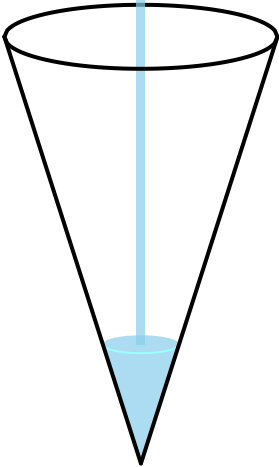
Height = 5.58 cm

Rate at which height increases = 0.1227 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 15.24 seconds



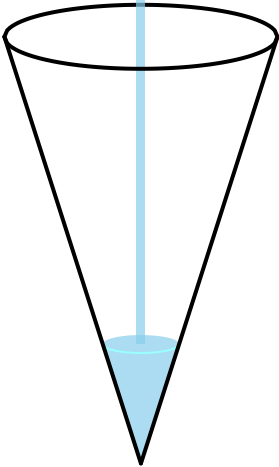
Height = 5.59 cm

Rate at which height increases = 0.1223 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 15.31 seconds



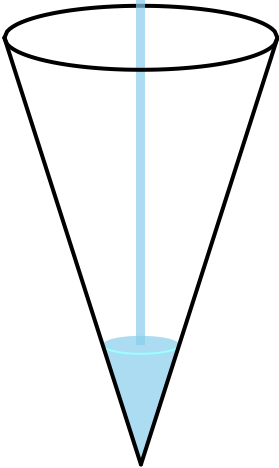
Height = 5.60 cm

Rate at which height increases = 0.1219 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 15.39 seconds



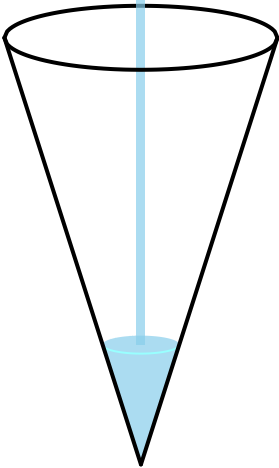
Height = 5.61 cm

Rate at which height increases = 0.1214 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 15.47 seconds



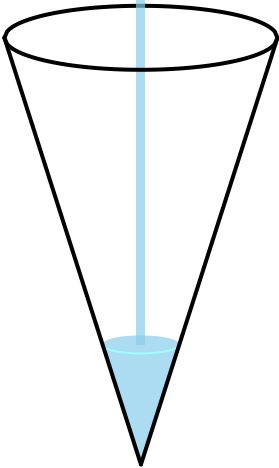
Height = 5.62 cm

Rate at which height increases = 0.1210 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 15.55 seconds



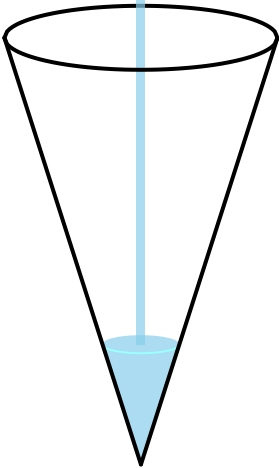
↑ Height = 5.63 cm

↕ Rate at which height increases = 0.1206 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 15.63 seconds



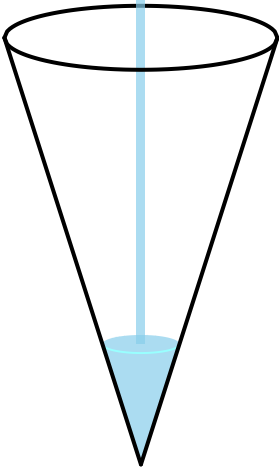
↑ Height = 5.64 cm

↕ Rate at which height increases = 0.1202 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 15.71 seconds



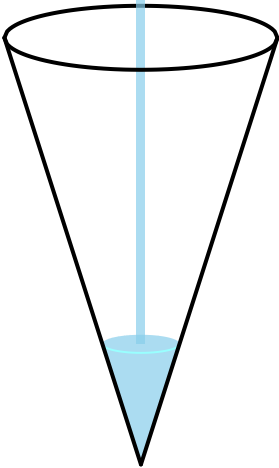
↑ Height = 5.65 cm

↕ Rate at which height increases = 0.1198 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 15.79 seconds



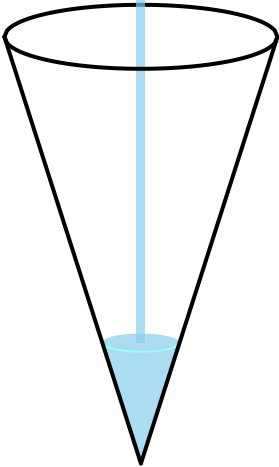
Height = 5.66 cm

Rate at which height increases = 0.1194 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 15.86 seconds



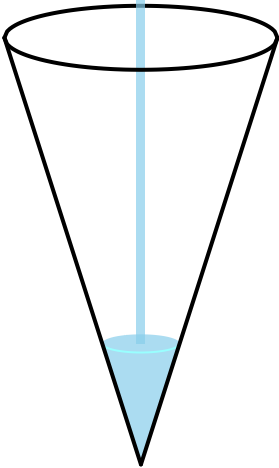
↑ Height = 5.66 cm

↕ Rate at which height increases = 0.1190 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 15.94 seconds



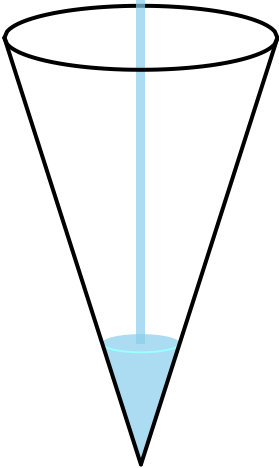
Height = 5.67 cm

Rate at which height increases = 0.1186 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 16.02 seconds



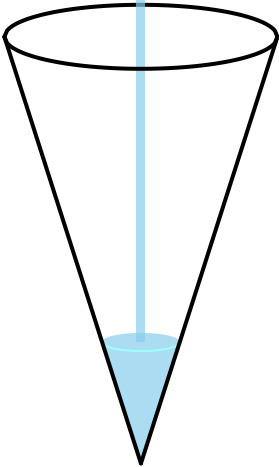
↑ Height = 5.68 cm

↕ Rate at which height increases = 0.1182 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 16.10 seconds



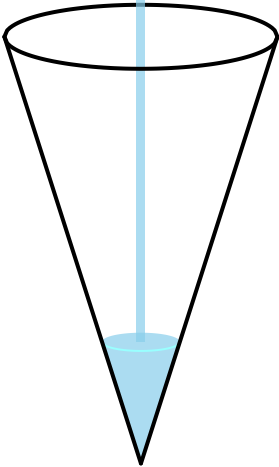
Height = 5.69 cm

Rate at which height increases = 0.1179 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 16.18 seconds



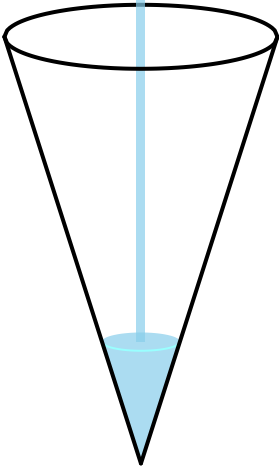
Height = 5.70 cm

Rate at which height increases = 0.1175 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 16.26 seconds



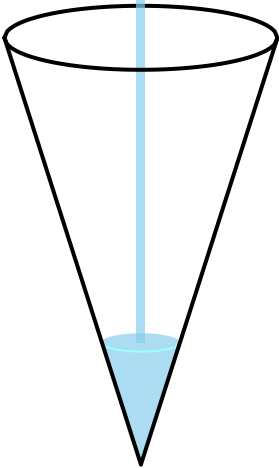
Height = 5.71 cm

Rate at which height increases = 0.1171 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 16.34 seconds



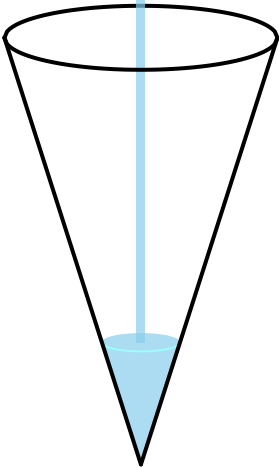
Height = 5.72 cm

Rate at which height increases = 0.1167 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 16.41 seconds



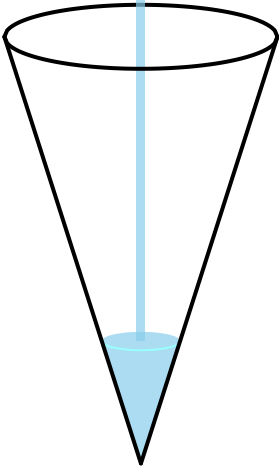
Height = 5.73 cm

Rate at which height increases = 0.1164 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 16.49 seconds



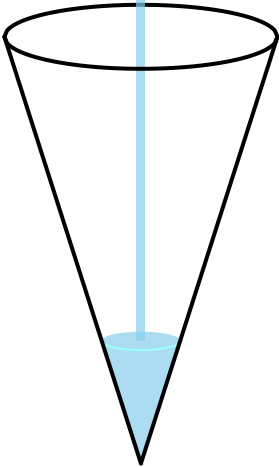
Height = 5.74 cm

Rate at which height increases = 0.1160 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 16.57 seconds



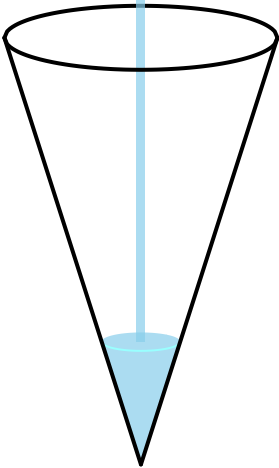
Height = 5.75 cm

Rate at which height increases = 0.1156 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 16.65 seconds



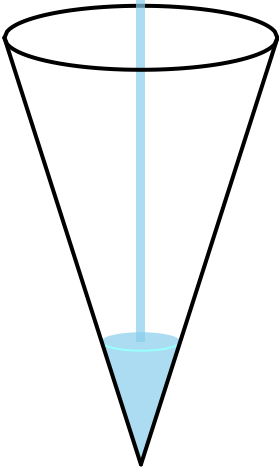
Height = 5.76 cm

Rate at which height increases = 0.1153 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 16.73 seconds



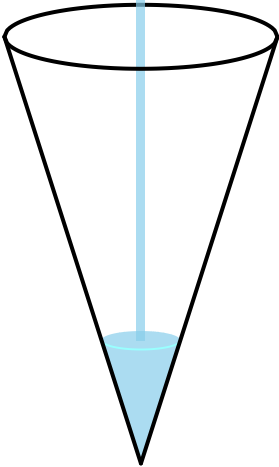
Height = 5.77 cm

Rate at which height increases = 0.1149 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 16.81 seconds



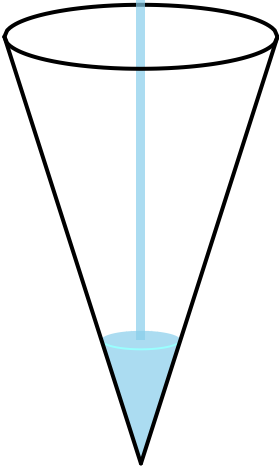
Height = 5.77 cm

Rate at which height increases = 0.1145 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 16.89 seconds



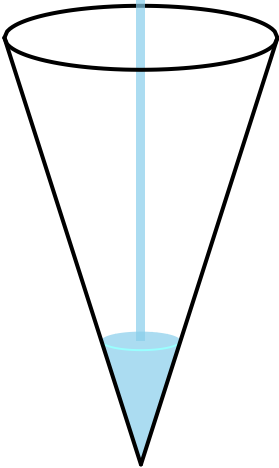
Height = 5.78 cm

Rate at which height increases = 0.1142 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 16.96 seconds



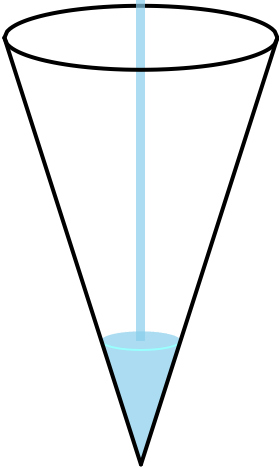
Height = 5.79 cm

Rate at which height increases = 0.1138 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 17.04 seconds



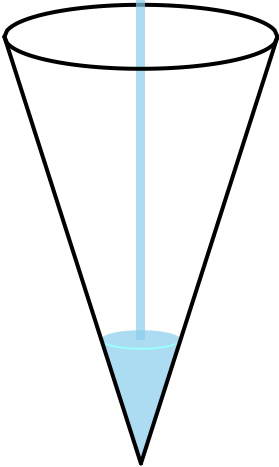
↑ Height = 5.80 cm

↑ Rate at which height increases = 0.1135 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 17.12 seconds



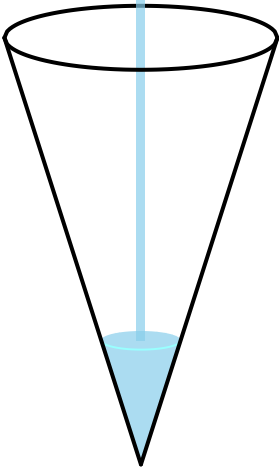
Height = 5.81 cm

Rate at which height increases = 0.1131 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 17.20 seconds



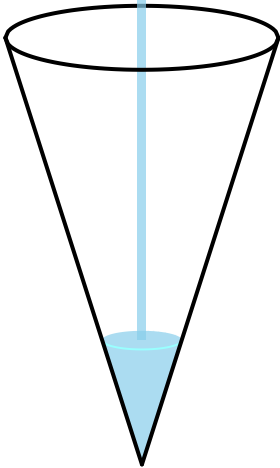
Height = 5.82 cm

Rate at which height increases = 0.1128 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 17.28 seconds



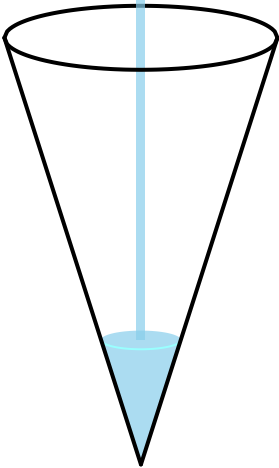
Height = 5.83 cm

Rate at which height increases = 0.1124 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 17.36 seconds



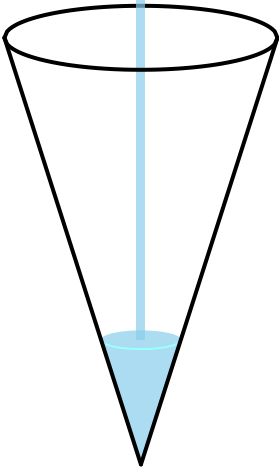
Height = 5.84 cm

Rate at which height increases = 0.1121 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 17.44 seconds



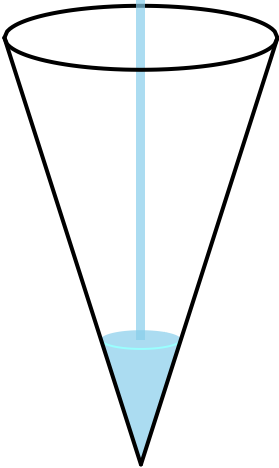
Height = 5.85 cm

Rate at which height increases = 0.1118 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 17.51 seconds



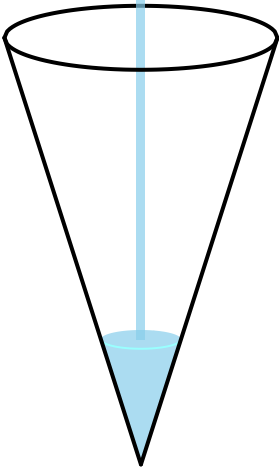
Height = 5.85 cm

Rate at which height increases = 0.1114 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 17.59 seconds



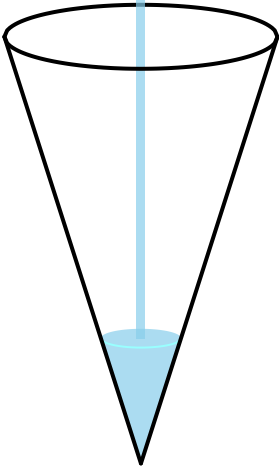
Height = 5.86 cm

Rate at which height increases = 0.1111 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 17.67 seconds



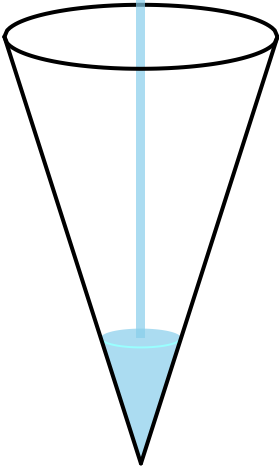
Height = 5.87 cm

Rate at which height increases = 0.1108 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 17.75 seconds



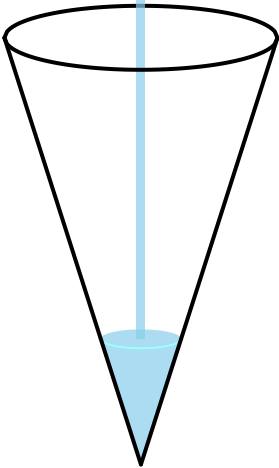
Height = 5.88 cm

Rate at which height increases = 0.1104 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 17.83 seconds



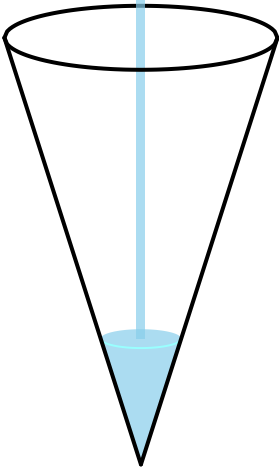
Height = 5.89 cm

Rate at which height increases = 0.1101 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 17.91 seconds



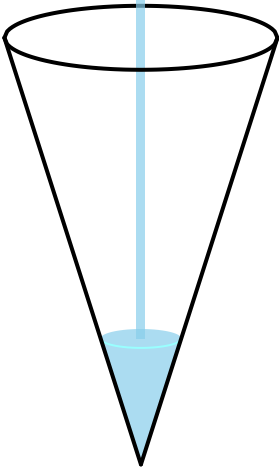
Height = 5.90 cm

Rate at which height increases = 0.1098 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 17.99 seconds



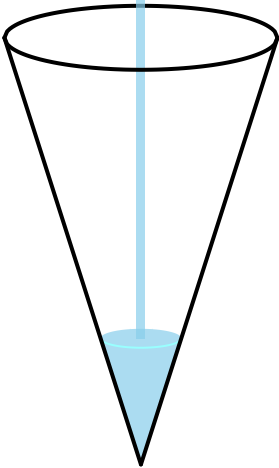
Height = 5.91 cm

Rate at which height increases = 0.1095 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 18.06 seconds



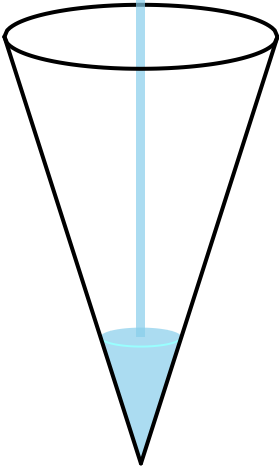
Height = 5.92 cm

Rate at which height increases = 0.1092 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 18.14 seconds



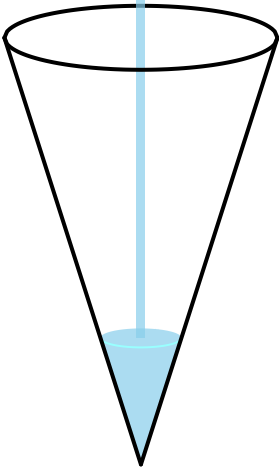
Height = 5.92 cm

Rate at which height increases = 0.1088 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 18.22 seconds



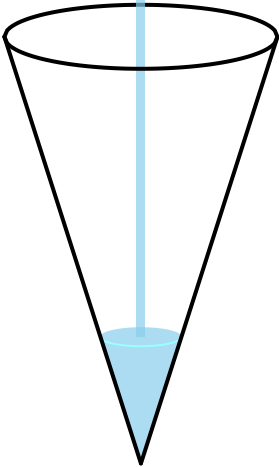
Height = 5.93 cm

Rate at which height increases = 0.1085 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 18.30 seconds



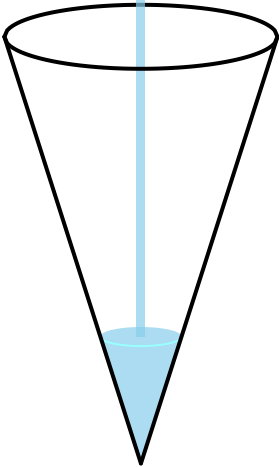
Height = 5.94 cm

Rate at which height increases = 0.1082 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 18.38 seconds



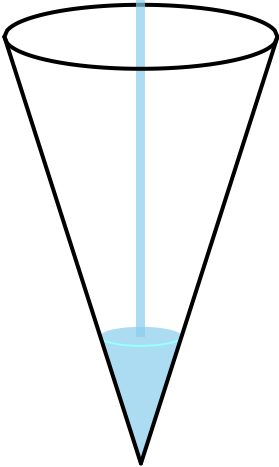
Height = 5.95 cm

Rate at which height increases = 0.1079 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 18.46 seconds



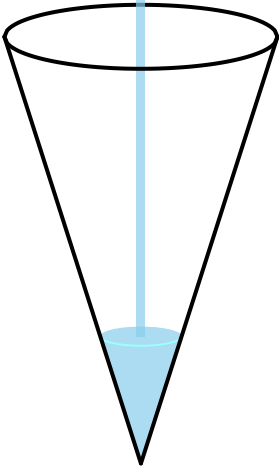
Height = 5.96 cm

Rate at which height increases = 0.1076 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 18.54 seconds



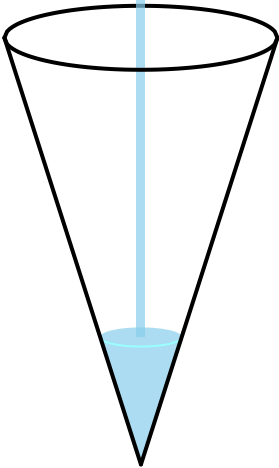
Height = 5.97 cm

Rate at which height increases = 0.1073 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 18.61 seconds



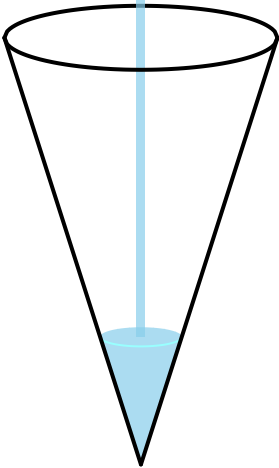
Height = 5.97 cm

Rate at which height increases = 0.1070 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 18.69 seconds



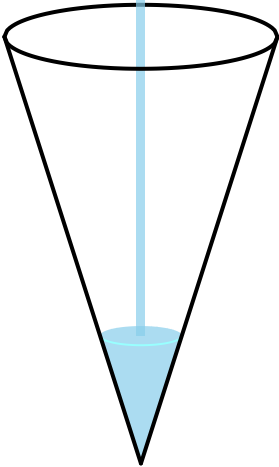
Height = 5.98 cm

Rate at which height increases = 0.1067 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 18.77 seconds



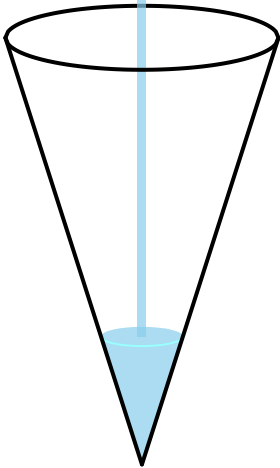
Height = 5.99 cm

Rate at which height increases = 0.1064 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 18.85 seconds



When the height reaches 6 cm, the speed at which height increases is exactly $\frac{1}{3}\pi \text{ cm/sec}$!



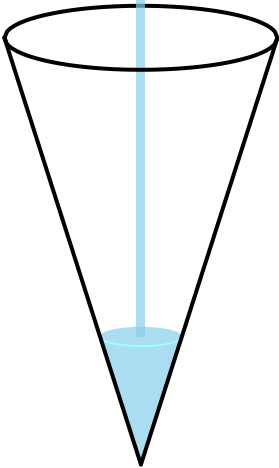
Height = 6.00 cm

Rate at which height increases = 0.1061 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 18.85 seconds



Question: How long does it take to fill up the container?

Height = 6.00 cm

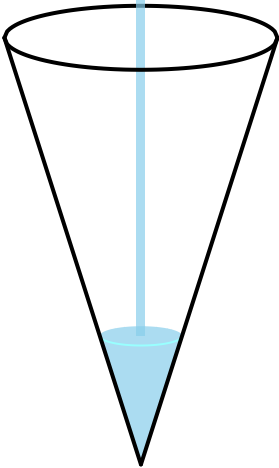
Rate at which height increases = 0.1061 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 19.12 seconds

SPEED UP...



Height = 6.03 cm

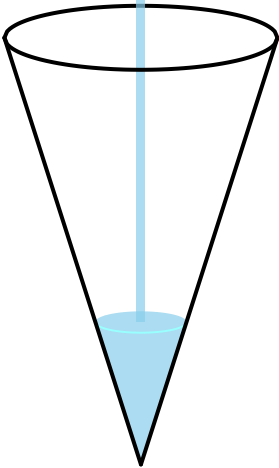
Rate at which height increases = 0.1051 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 25.98 seconds

SPEED UP...



Height = 6.68 cm

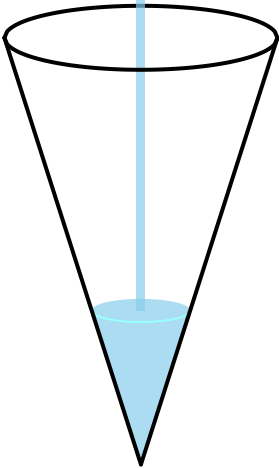
Rate at which height increases = 0.0857 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 32.84 seconds

SPEED UP...



Height = 7.22 cm

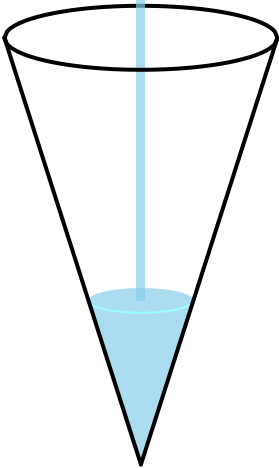
Rate at which height increases = 0.0733 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 39.70 seconds

SPEED UP...



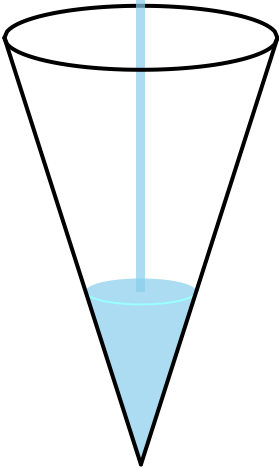
Height = 7.69 cm

Rate at which height increases = 0.0646 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 46.55 seconds



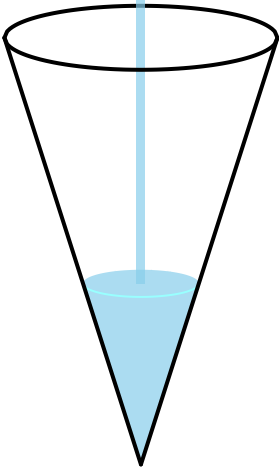
Height = 8.11 cm

Rate at which height increases = 0.0581 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 53.41 seconds



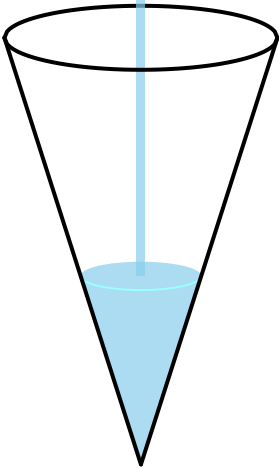
Height = 8.49 cm

Rate at which height increases = 0.0530 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 60.27 seconds



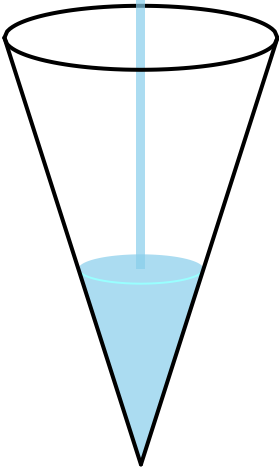
Height = 8.84 cm

Rate at which height increases = 0.0489 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 67.13 seconds



Height = 9.16 cm

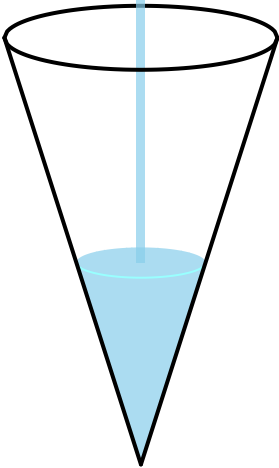
Rate at which height increases = 0.0455 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 73.99 seconds

SPEED UP...



Height = 9.46 cm

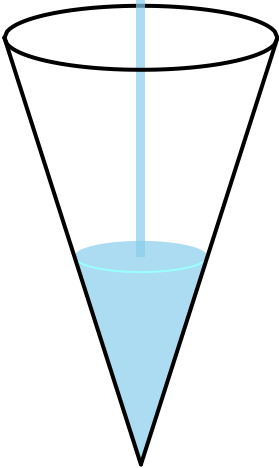
Rate at which height increases = 0.0426 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 80.85 seconds

SPEED UP...



Height = 9.75 cm

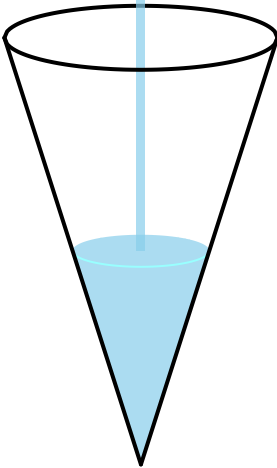
Rate at which height increases = 0.0402 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 87.71 seconds

SPEED UP...



Height = 10.02 cm

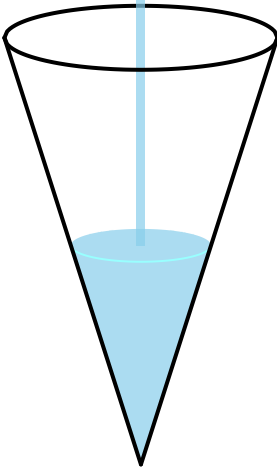
Rate at which height increases = 0.0381 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 94.57 seconds

SPEED UP...



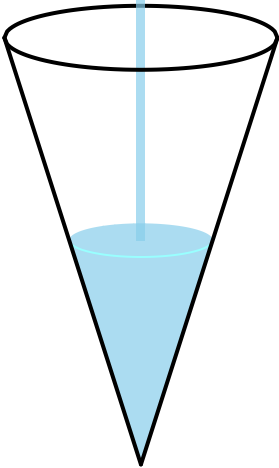
Height = 10.27 cm

Rate at which height increases = 0.0362 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 101.42 seconds



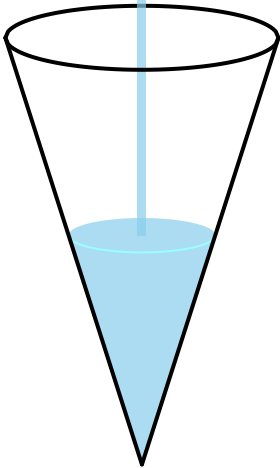
Height = 10.51 cm

Rate at which height increases = 0.0346 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 108.28 seconds



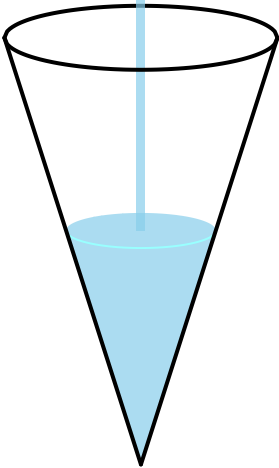
Height = 10.75 cm

Rate at which height increases = 0.0331 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 115.14 seconds



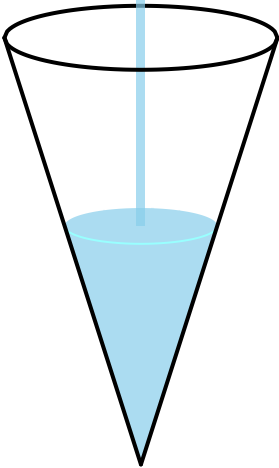
Height = 10.97 cm

Rate at which height increases = 0.0318 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 122.00 seconds



Height = 11.18 cm

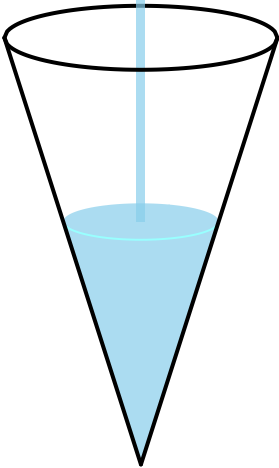
Rate at which height increases = 0.0306 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 128.86 seconds

SPEED UP...



Height = 11.39 cm

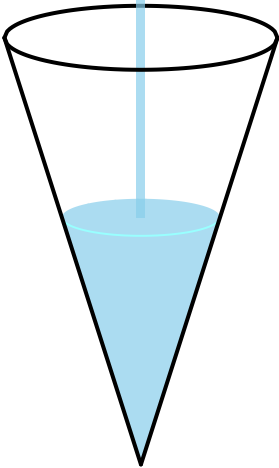
Rate at which height increases = 0.0295 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 135.72 seconds

SPEED UP...



Height = 11.59 cm

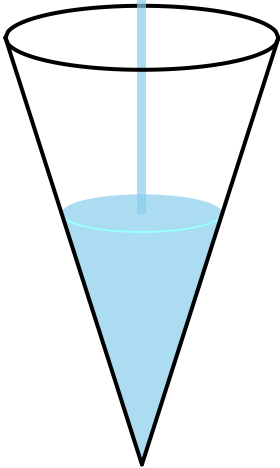
Rate at which height increases = 0.0285 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 142.58 seconds

SPEED UP...



Height = 11.78 cm

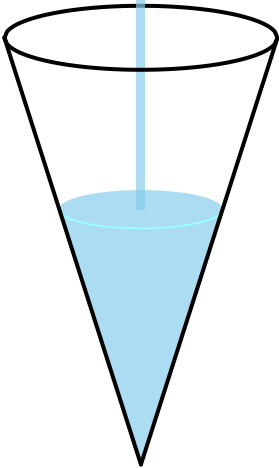
Rate at which height increases = 0.0275 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 149.44 seconds

SPEED UP...



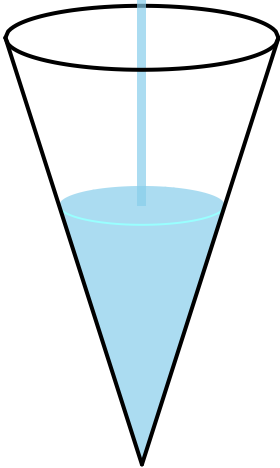
Height = 11.96 cm

Rate at which height increases = 0.0267 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 156.29 seconds



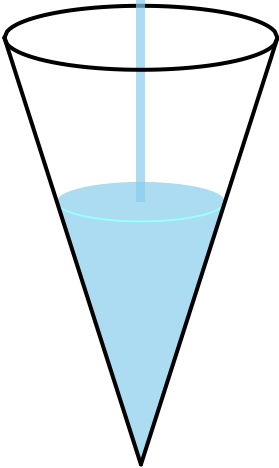
Height = 12.14 cm

Rate at which height increases = 0.0259 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 163.15 seconds



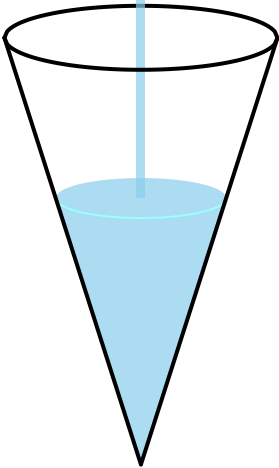
Height = 12.32 cm

Rate at which height increases = 0.0252 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 170.01 seconds



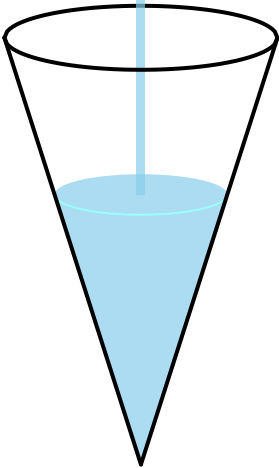
Height = 12.49 cm

Rate at which height increases = 0.0245 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 176.87 seconds



Height = 12.66 cm

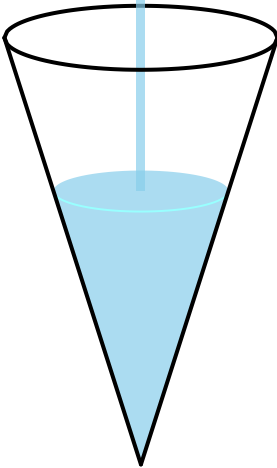
Rate at which height increases = 0.0239 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 183.73 seconds

SPEED UP...



Height = 12.82 cm

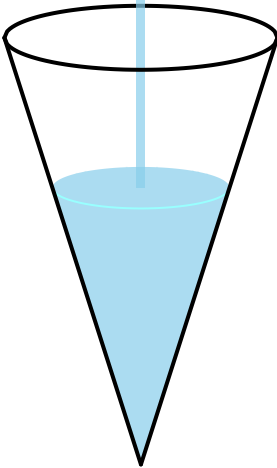
Rate at which height increases = 0.0233 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 190.59 seconds

SPEED UP...



Height = 12.97 cm

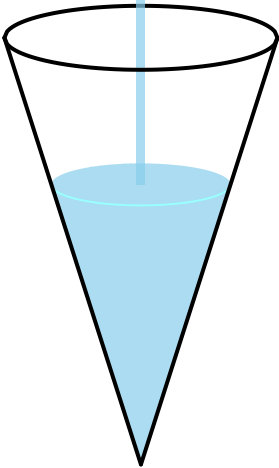
Rate at which height increases = 0.0227 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 197.45 seconds

SPEED UP...



Height = 13.13 cm

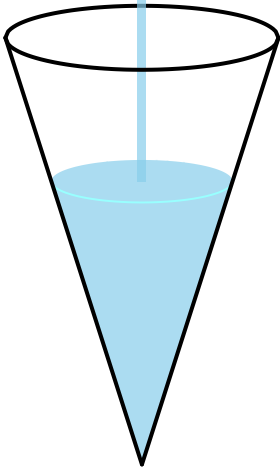
Rate at which height increases = 0.0222 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 204.30 seconds

SPEED UP...



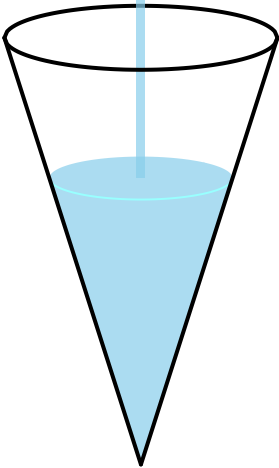
Height = 13.28 cm

Rate at which height increases = 0.0217 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 211.16 seconds



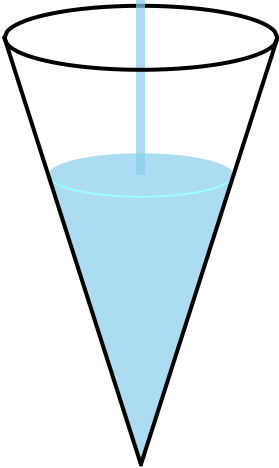
Height = 13.43 cm

Rate at which height increases = 0.0212 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 218.02 seconds



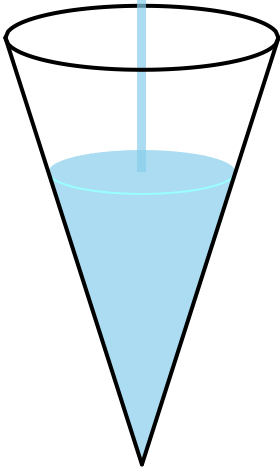
Height = 13.57 cm

Rate at which height increases = 0.0207 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 224.88 seconds



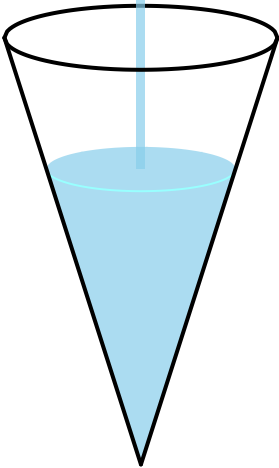
Height = 13.71 cm

Rate at which height increases = 0.0203 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 231.74 seconds



Height = 13.85 cm

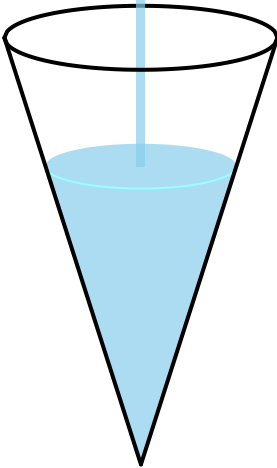
Rate at which height increases = 0.0199 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 238.60 seconds

SPEED UP...



Height = 13.98 cm

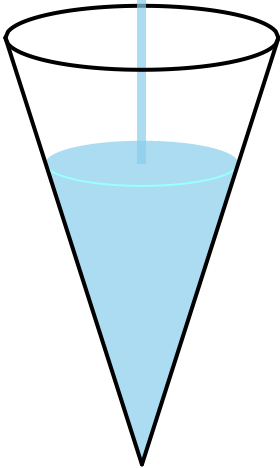
Rate at which height increases = 0.0195 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 245.46 seconds

SPEED UP...



Height = 14.12 cm

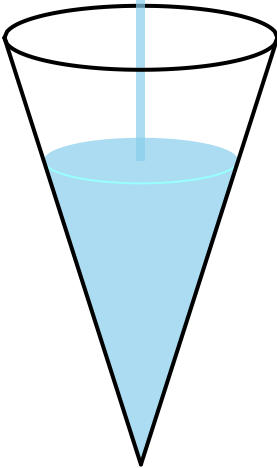
Rate at which height increases = 0.0192 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 252.32 seconds

SPEED UP...



Height = 14.25 cm

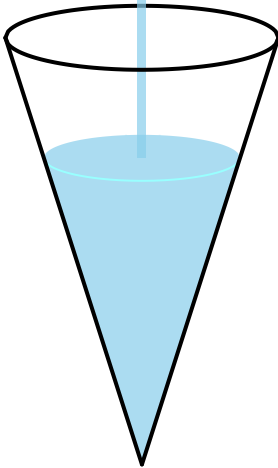
Rate at which height increases = 0.0188 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 259.17 seconds

SPEED UP...



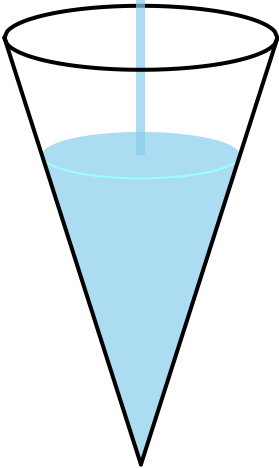
Height = 14.37 cm

Rate at which height increases = 0.0185 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 266.03 seconds



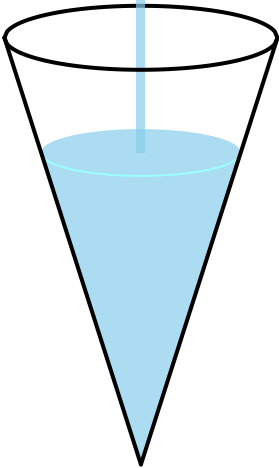
Height = 14.50 cm

Rate at which height increases = 0.0182 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 272.89 seconds



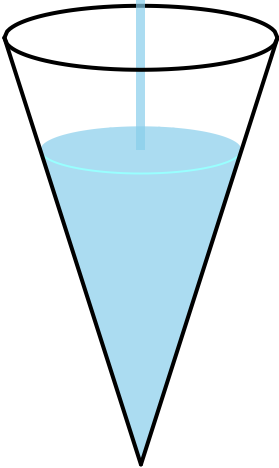
Height = 14.62 cm

Rate at which height increases = 0.0179 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 279.75 seconds



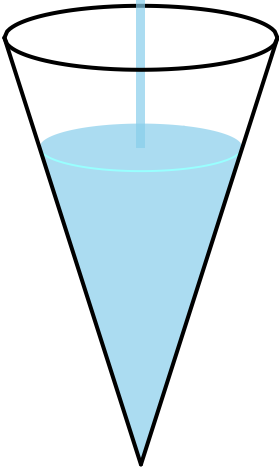
Height = 14.74 cm

Rate at which height increases = 0.0176 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 286.61 seconds



Height = 14.86 cm

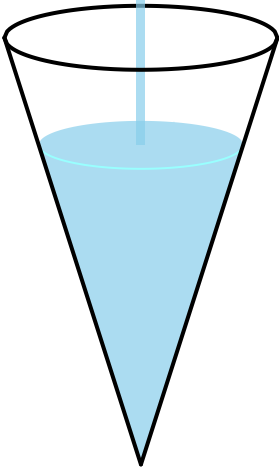
Rate at which height increases = 0.0173 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 293.47 seconds

SPEED UP...



Height = 14.98 cm

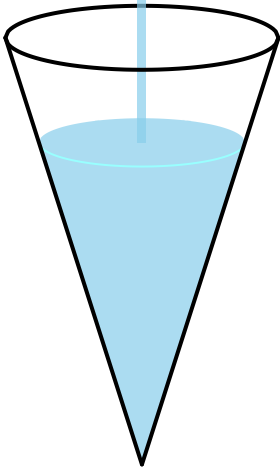
Rate at which height increases = 0.0170 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 300.33 seconds

SPEED UP...



Height = 15.10 cm

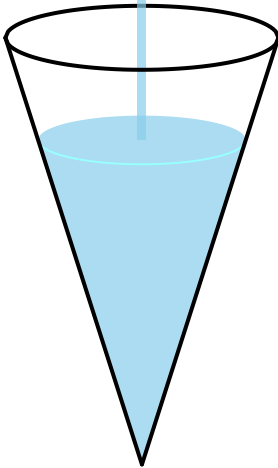
Rate at which height increases = 0.0168 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 307.18 seconds

SPEED UP...



Height = 15.21 cm

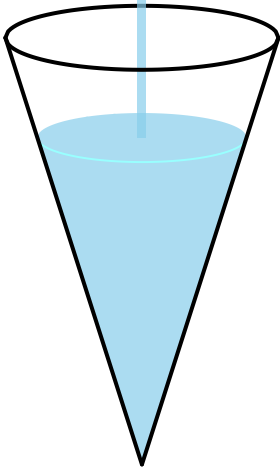
Rate at which height increases = 0.0165 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 314.04 seconds

SPEED UP...



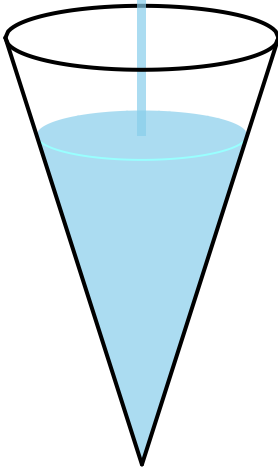
Height = 15.32 cm

Rate at which height increases = 0.0163 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 320.90 seconds



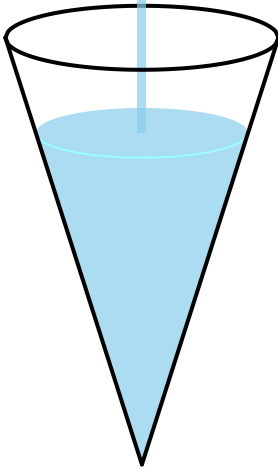
Height = 15.44 cm

Rate at which height increases = 0.0160 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 327.76 seconds



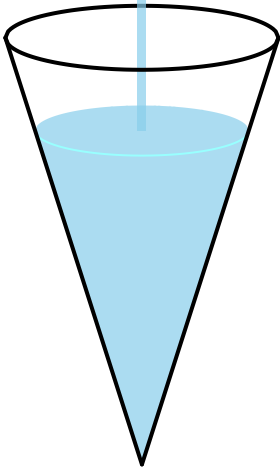
Height = 15.54 cm

Rate at which height increases = 0.0158 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 334.62 seconds



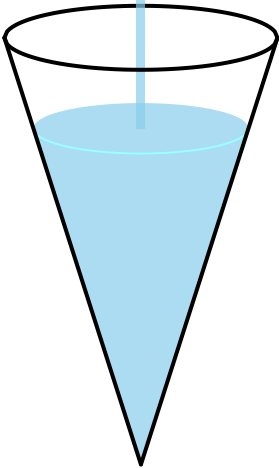
Height = 15.65 cm

Rate at which height increases = 0.0156 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 341.48 seconds



Height = 15.76 cm

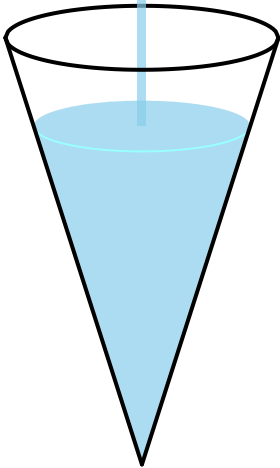
Rate at which height increases = 0.0154 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 348.34 seconds

SPEED UP...



Height = 15.86 cm

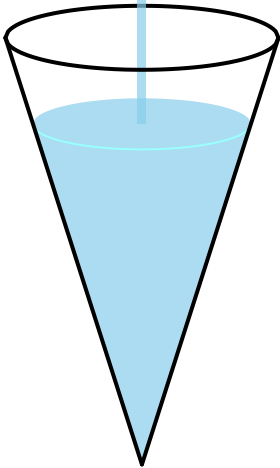
Rate at which height increases = 0.0152 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 355.20 seconds

SPEED UP...



Height = 15.97 cm

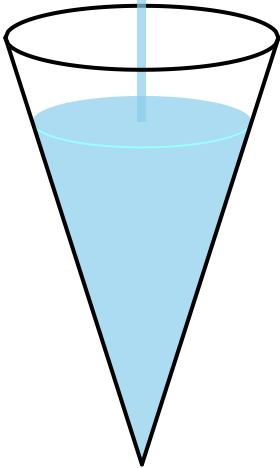
Rate at which height increases = 0.0150 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 362.05 seconds

SPEED UP...



Height = 16.07 cm

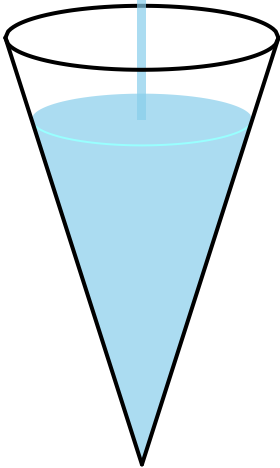
Rate at which height increases = 0.0148 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 368.91 seconds

SPEED UP...



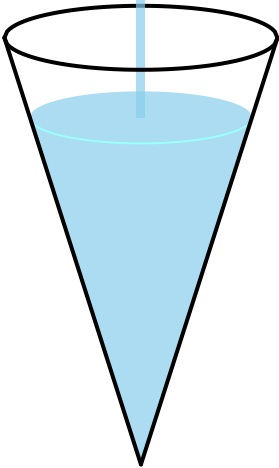
Height = 16.17 cm

Rate at which height increases = 0.0146 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 375.77 seconds



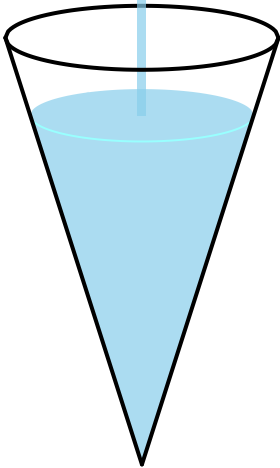
Height = 16.27 cm

Rate at which height increases = 0.0144 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 382.63 seconds



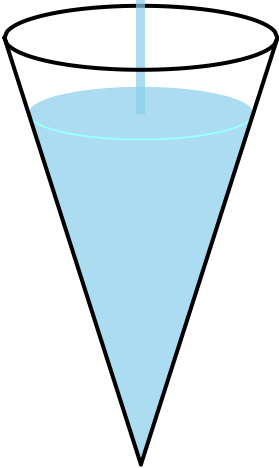
Height = 16.37 cm

Rate at which height increases = 0.0143 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 389.49 seconds



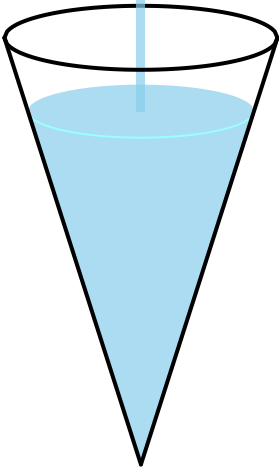
Height = 16.46 cm

Rate at which height increases = 0.0141 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 396.35 seconds



Height = 16.56 cm

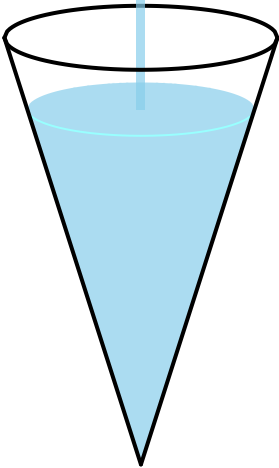
Rate at which height increases = 0.0139 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 403.21 seconds

SPEED UP...



Height = 16.66 cm

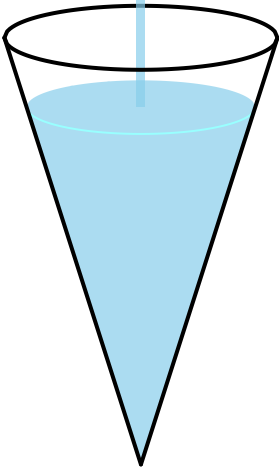
Rate at which height increases = 0.0138 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 410.07 seconds

SPEED UP...



Height = 16.75 cm

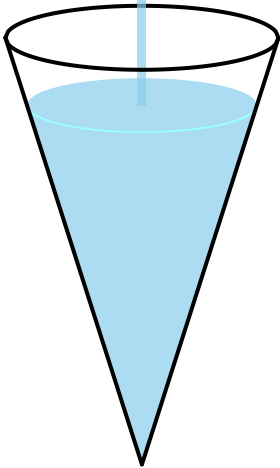
Rate at which height increases = 0.0136 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 416.92 seconds

SPEED UP...



Height = 16.84 cm

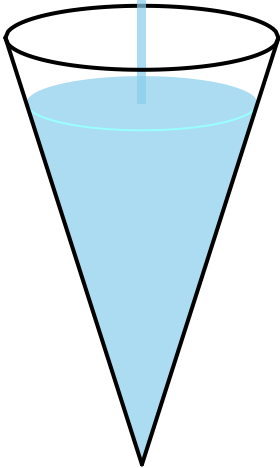
Rate at which height increases = 0.0135 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 423.78 seconds

SPEED UP...



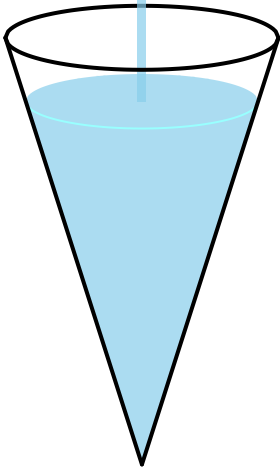
Height = 16.93 cm

Rate at which height increases = 0.0133 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 430.64 seconds



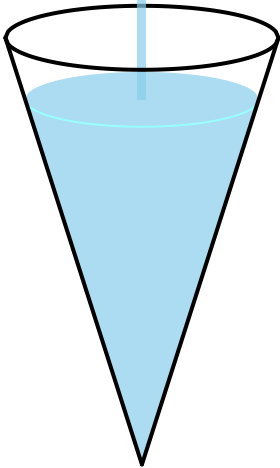
Height = 17.03 cm

Rate at which height increases = 0.0132 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 437.50 seconds



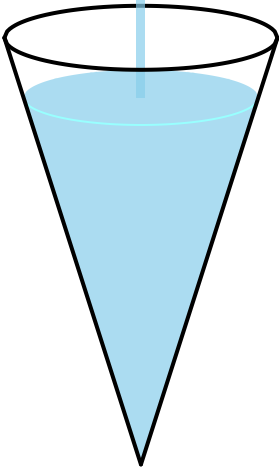
Height = 17.11 cm

Rate at which height increases = 0.0130 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 444.36 seconds



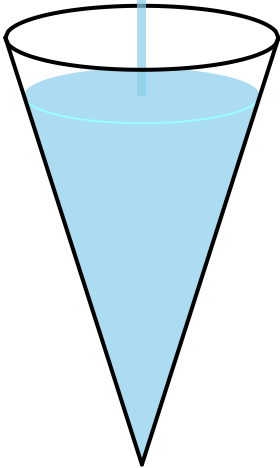
Height = 17.20 cm

Rate at which height increases = 0.0129 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 451.22 seconds



Height = 17.29 cm

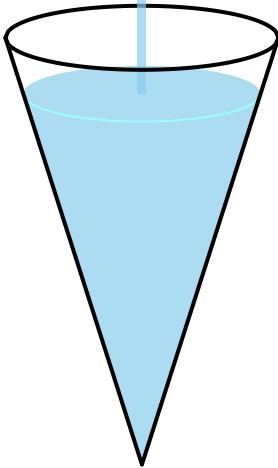
Rate at which height increases = 0.0128 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 458.08 seconds

SPEED UP...



Height = 17.38 cm

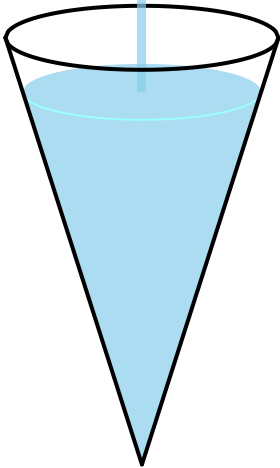
Rate at which height increases = 0.0126 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 464.93 seconds

SPEED UP...



Height = 17.47 cm

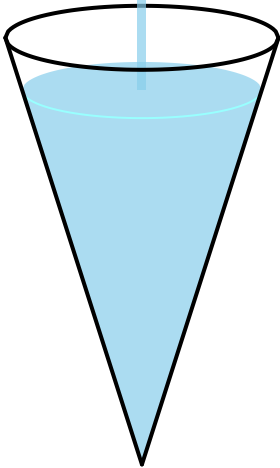
Rate at which height increases = 0.0125 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 471.79 seconds

SPEED UP...



Height = 17.55 cm

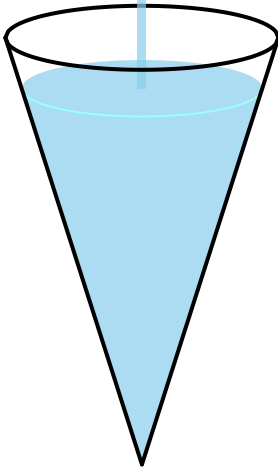
Rate at which height increases = 0.0124 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 478.65 seconds

SPEED UP...



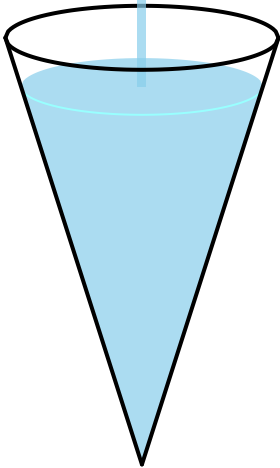
Height = 17.64 cm

Rate at which height increases = 0.0123 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 485.51 seconds



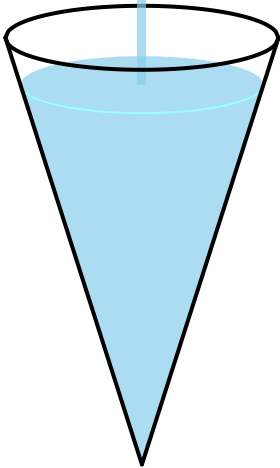
Height = 17.72 cm

Rate at which height increases = 0.0122 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 492.37 seconds



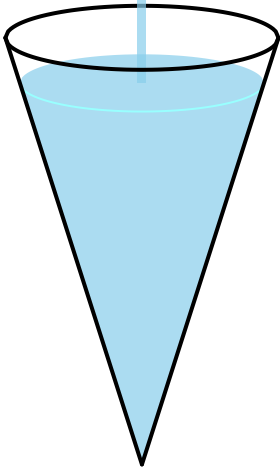
Height = 17.80 cm

Rate at which height increases = 0.0121 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 499.23 seconds



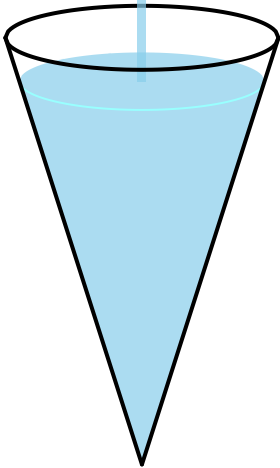
Height = 17.88 cm

Rate at which height increases = 0.0119 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 506.09 seconds



Height = 17.97 cm

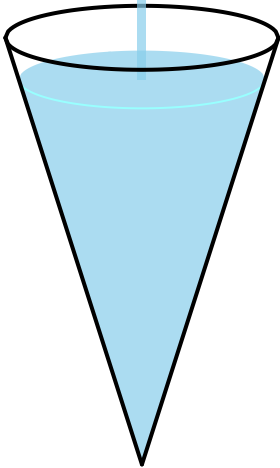
Rate at which height increases = 0.0118 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 512.95 seconds

SPEED UP...



Height = 18.05 cm

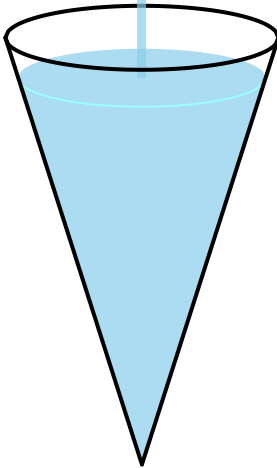
Rate at which height increases = 0.0117 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 519.80 seconds

SPEED UP...



Height = 18.13 cm

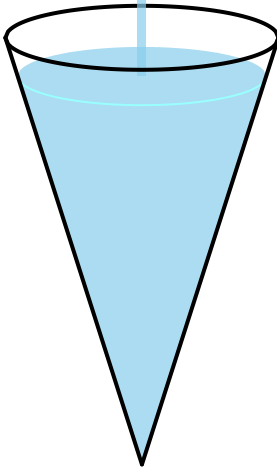
Rate at which height increases = 0.0116 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 526.66 seconds

SPEED UP...



Height = 18.21 cm

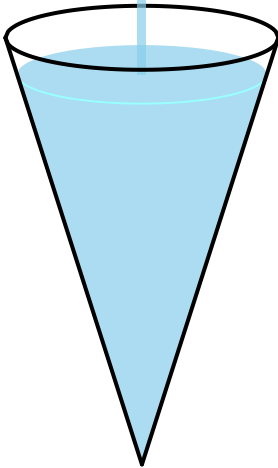
Rate at which height increases = 0.0115 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 533.52 seconds

SPEED UP...



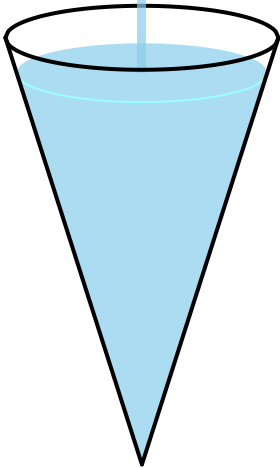
Height = 18.29 cm

Rate at which height increases = 0.0114 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 540.38 seconds



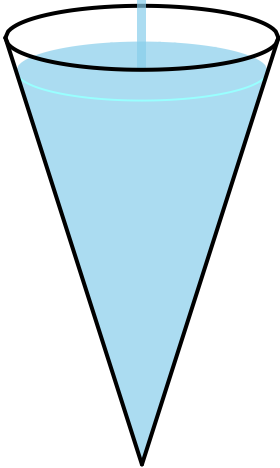
Height = 18.36 cm

Rate at which height increases = 0.0113 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

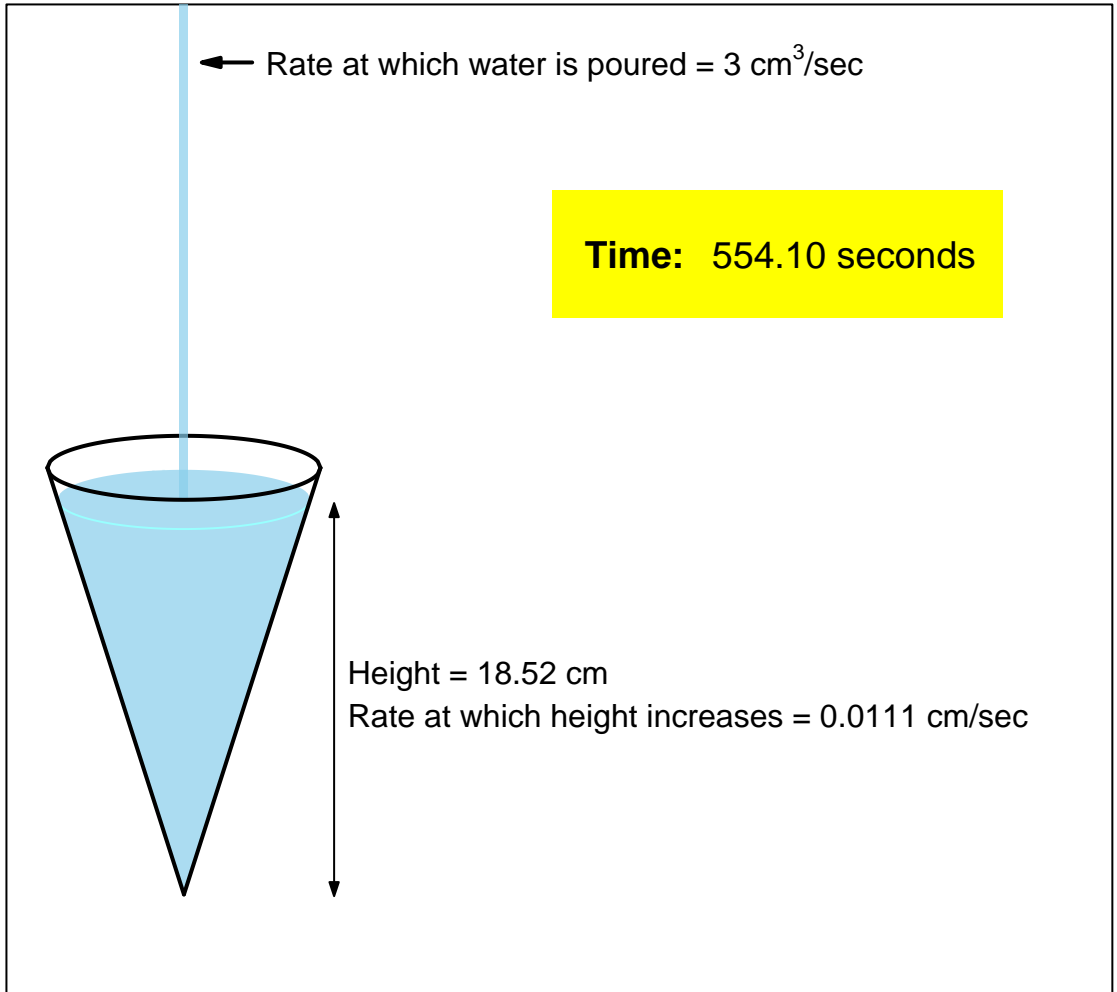
Time: 547.24 seconds



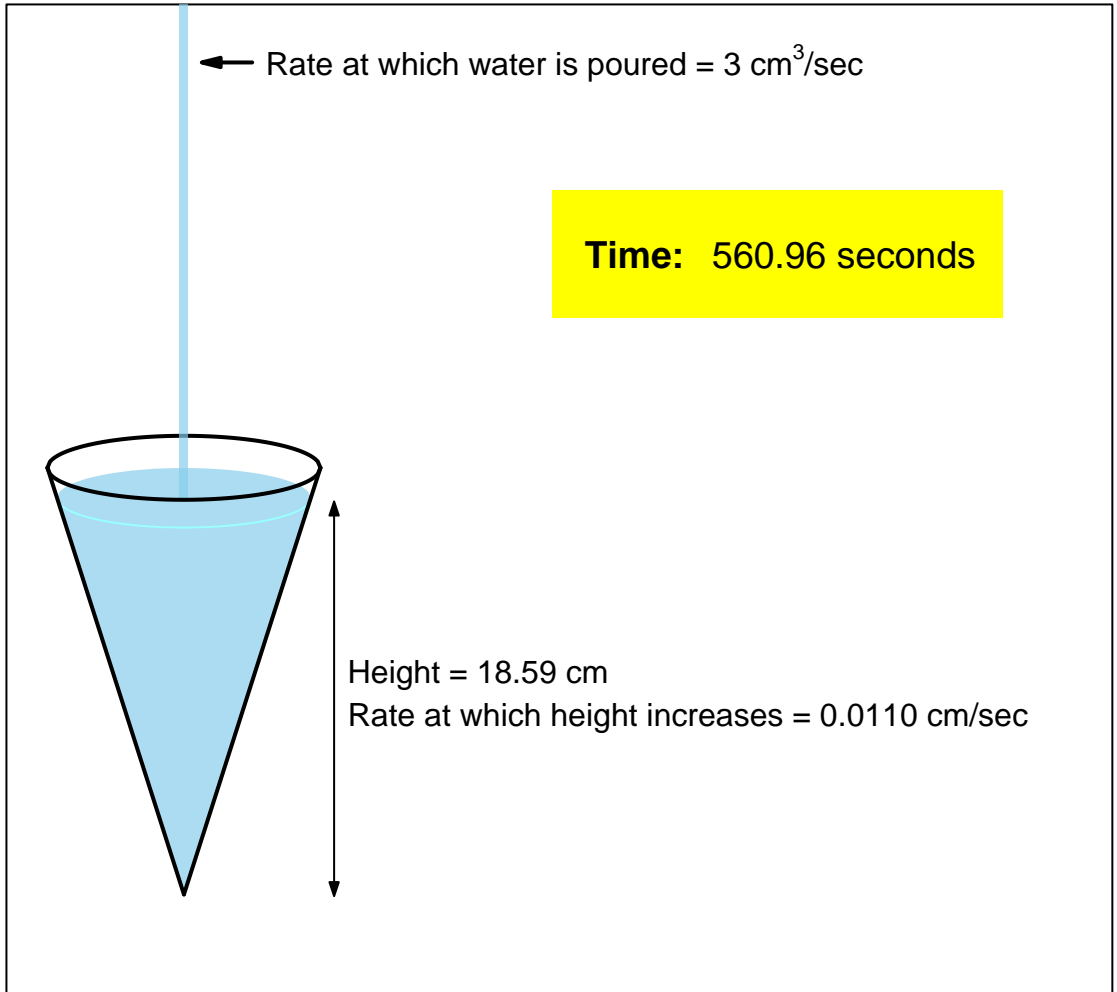
Height = 18.44 cm

Rate at which height increases = 0.0112 cm/sec

Applications of Differentiation



Applications of Differentiation

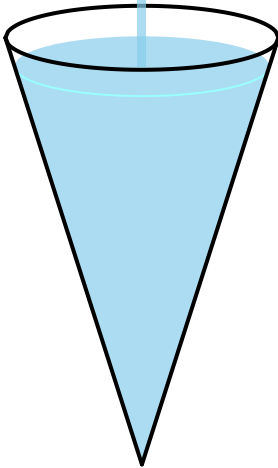


Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 567.81 seconds

SPEED UP...



Height = 18.67 cm

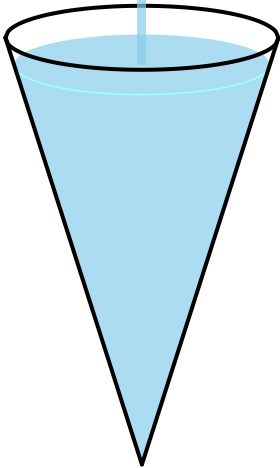
Rate at which height increases = 0.0110 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 574.67 seconds

SPEED UP...



Height = 18.74 cm

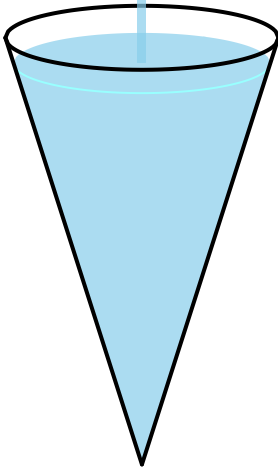
Rate at which height increases = 0.0109 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 581.53 seconds

SPEED UP...



Height = 18.82 cm

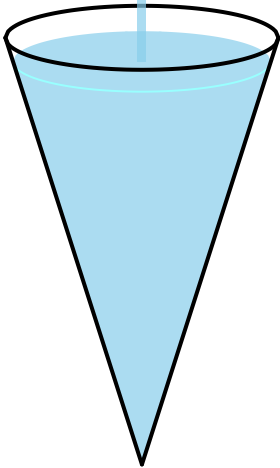
Rate at which height increases = 0.0108 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 588.39 seconds

SPEED UP...



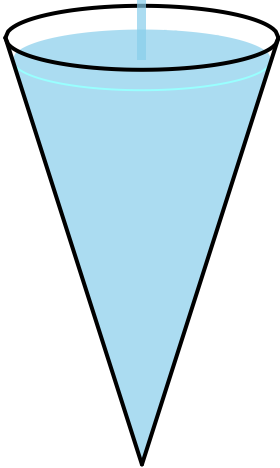
Height = 18.89 cm

Rate at which height increases = 0.0107 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 595.25 seconds



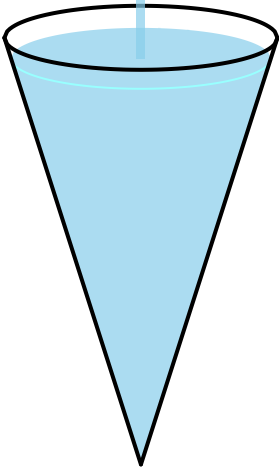
Height = 18.96 cm

Rate at which height increases = 0.0106 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 602.11 seconds



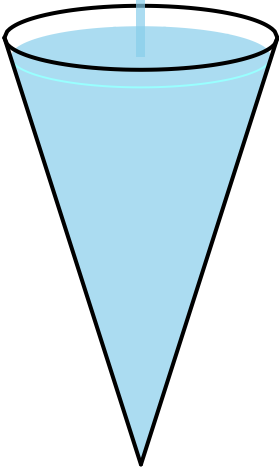
Height = 19.04 cm

Rate at which height increases = 0.0105 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 608.97 seconds



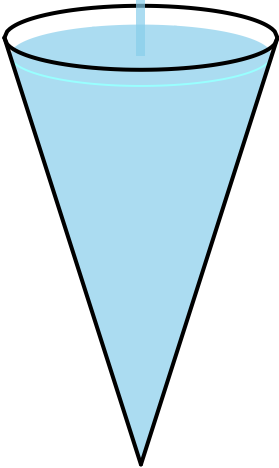
Height = 19.11 cm

Rate at which height increases = 0.0105 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 615.83 seconds



Height = 19.18 cm

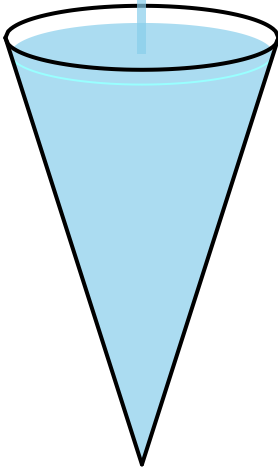
Rate at which height increases = 0.0104 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 622.68 seconds

SPEED UP...



Height = 19.25 cm

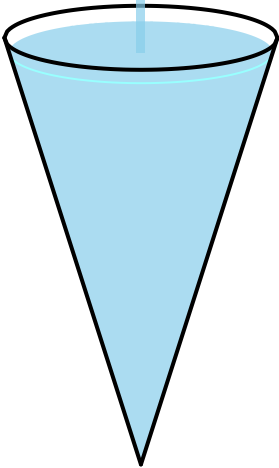
Rate at which height increases = 0.0103 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 629.54 seconds

SPEED UP...



Height = 19.32 cm

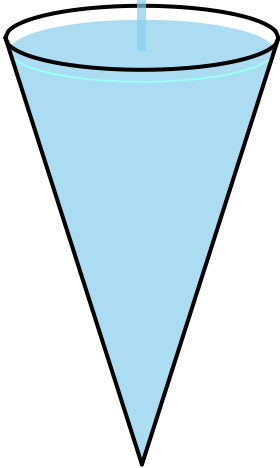
Rate at which height increases = 0.0102 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 636.40 seconds

SPEED UP...



Height = 19.39 cm

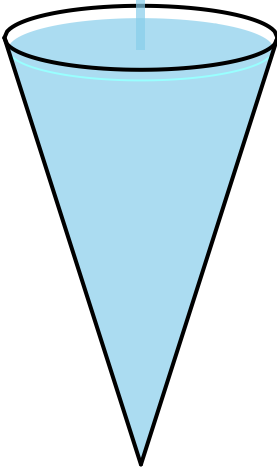
Rate at which height increases = 0.0102 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 643.26 seconds

SPEED UP...



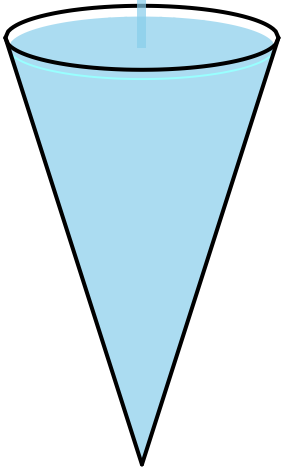
Height = 19.46 cm

Rate at which height increases = 0.0101 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 650.12 seconds



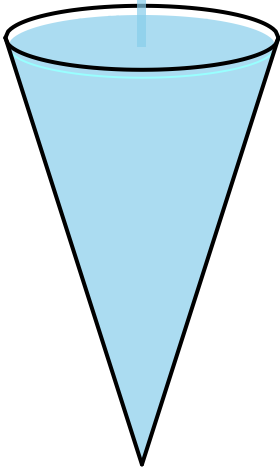
Height = 19.53 cm

Rate at which height increases = 0.0100 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 656.98 seconds



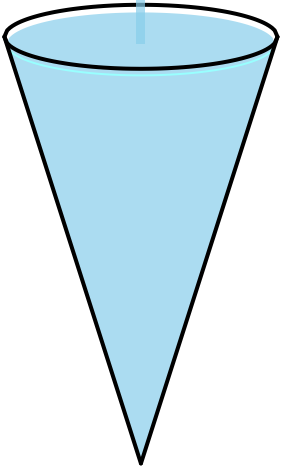
Height = 19.60 cm

Rate at which height increases = 0.0099 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 663.84 seconds



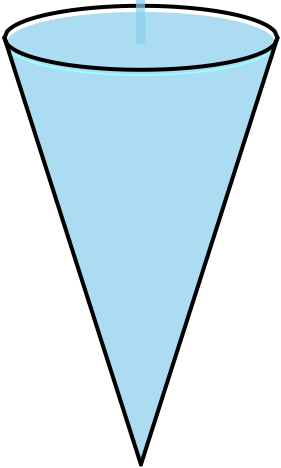
Height = 19.67 cm

Rate at which height increases = 0.0099 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 670.70 seconds



Height = 19.73 cm

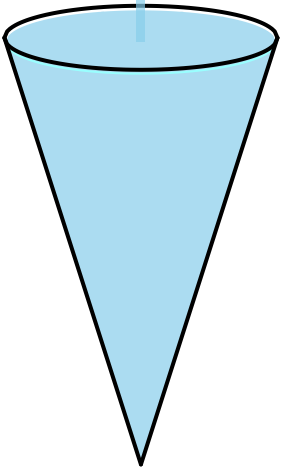
Rate at which height increases = 0.0098 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 677.55 seconds

SPEED UP...



Height = 19.80 cm

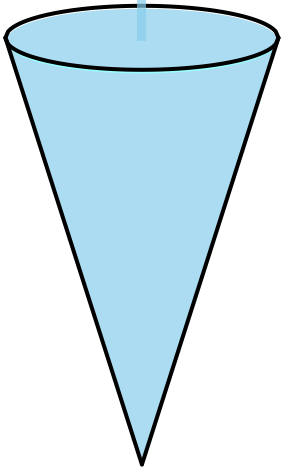
Rate at which height increases = 0.0097 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 684.41 seconds

SPEED UP...



Height = 19.87 cm

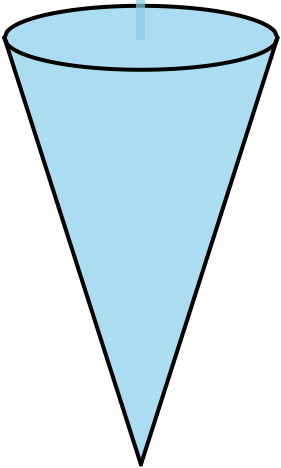
Rate at which height increases = 0.0097 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 691.27 seconds

SPEED UP...



Height = 19.93 cm

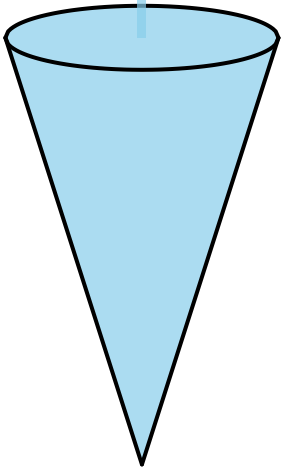
Rate at which height increases = 0.0096 cm/sec

Applications of Differentiation

← Rate at which water is poured = $3 \text{ cm}^3/\text{sec}$

Time: 698.13 seconds

Woah.. It takes almost 12 minutes!

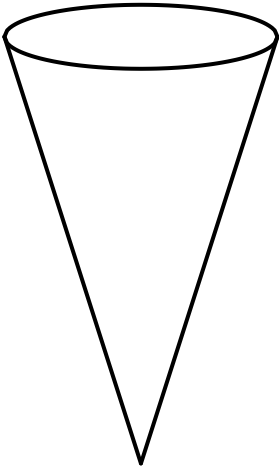


Height = 20.00 cm

Rate at which height increases = 0.0095 cm/sec

Applications of Differentiation

Time: 0.00 seconds



Height = 0 cm

Rate at which height rises = undefined