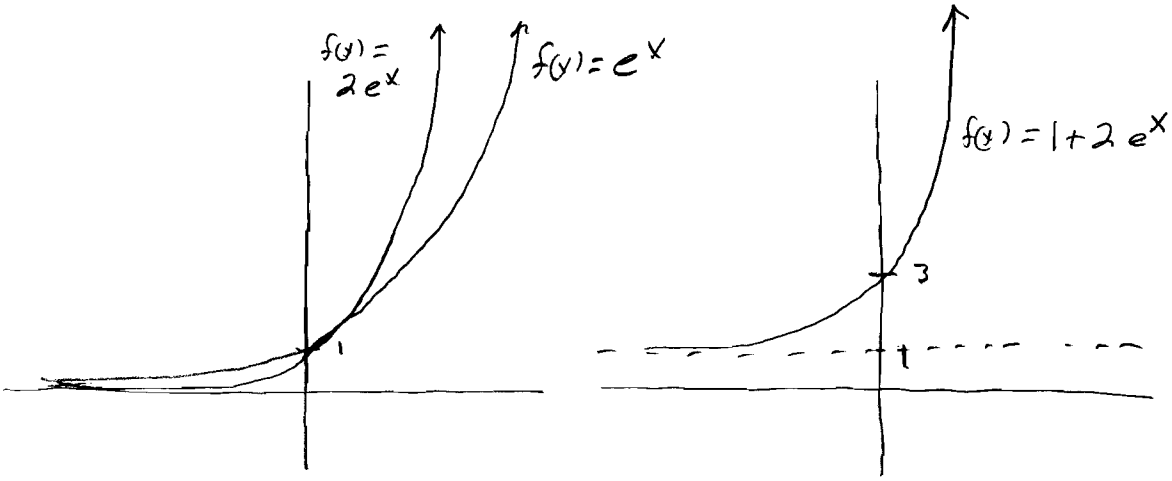
3-0235 — 50 SHEETS — 5 SQUARES
3-0236 — 100 SHEETS — 5 SQUARES
3-0237 — 200 SHEETS — 5 SQUARES
3-0137 — 200 SHEETS — FILLER
COMET

3) They all approach $\emptyset$ as $x \to -\infty$,
All pass through $(0,1)$
All approach ∞ as $x \to \infty$
The larger the base, the faster it approaches ∞ when $x>0$. When $x<0$, the larger the base, the faster it approaches zero.

6) All of the function approach zero as $x \to \infty$.
The smaller the base, the faster they approach zero for $x>0$.
For $x<0$, the smaller the base, the faster the function grows.
All functions pass through $(0,1)$

10)



13) $y = e^x$

a) shift down 2 : $y = e^x - 2$

b) shift right 2 : $y = e^{x-2}$

c) reflect about x-axis : $y = -e^x$

d) reflect about y-axis : $y = e^{-x}$

e) reflect about x-axis, then y-axis : $y = -e^{-x}$

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COMET

16) a. $g(t) = \sin(e^{-t})$

$f(t) = e^{-t}$ $\quad h(t) = \sin t$

domain = $\mathbb{R}$

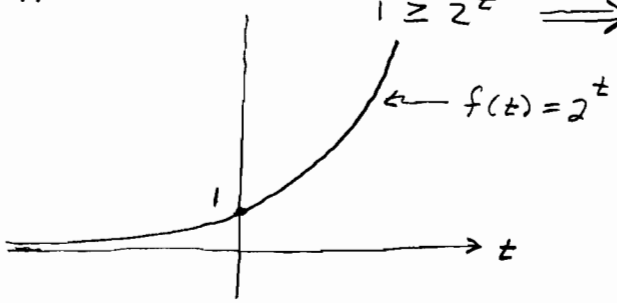
b. $g(t) = \sqrt{1-2^t}$

$f(t) = 1-2^t$ $\quad h(t) = \sqrt{t}$

d_h: $t \geq 0$ $\therefore$ $1-2^t \geq 0$

$1 \geq 2^t \Longrightarrow$ domain: $\{t \mid 2^t \leq 1\}$

$\{t \mid t \leq 0\}$



21) $f(24) = (24)^2$

$= 576$ in

$= 48$ feet

$g(24) = 2^{24}$

$= 16{,}777{,}216$ in

$= 1.3981 \times 10^6$ feet

$= 264.79$ miles

25)

a) 15 hours means 5 doubling periods

$p = 100 \cdot 2^5$

$= 3200$

b) $p(t) = 100 \cdot 2^{t/3}$

c) $p(20) = 100 \cdot 2^{20/3}$

$\approx 10{,}159$

d) $x \approx 26.89$ $\quad$ pop $= 50{,}000$