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

1) a. $\lim_{x\to 2}\left[f(x)+5g(x)\right] = 4 + 5\cdot(-2) = -6$

b. $\lim_{x\to 2}\left[g(x)\right]^3 = (-2)^3 = -8$

c. $\lim_{x\to 2}\sqrt{f(x)} = \sqrt{4} = 2$

d. $\lim_{x\to 2}\dfrac{3f(x)}{g(x)} = \dfrac{3\cdot 4}{-2} = -6$

e. $\lim_{x\to 2}\dfrac{g(x)}{h(x)} = \dfrac{-2}{0} =$ undefined

f. $\lim_{x\to 2}\dfrac{g(x)h(x)}{f(x)} = \dfrac{-2\cdot 0}{4} = 0$

2) a. $\lim_{x\to 2}\left[f(x)+g(x)\right] = 2+0 = 2$

b. $\lim_{x\to 1}\left[f(x)+g(x)\right] = 1 +$ DNE $=$ DNE

c. $\lim_{x\to 0}\left[f(x)g(x)\right] = 0\cdot 14 = 0$

d. $\lim_{x\to -1}\dfrac{f(x)}{g(x)} = \dfrac{-1}{0} =$ D.N.E

e. $\lim_{x\to 2}\left[x^3 f(x)\right] = 8\cdot 2 = 16$

f. $\lim_{x\to 1}\sqrt{3+f(x)} = \sqrt{3+1} = 2$

4) $\lim_{x\to 2}\dfrac{2x^2+1}{x^2+6x-4}$

$= \dfrac{\lim_{x\to 2} 2x^2+1}{\lim_{x\to 2} x^2+6x-4}$ (limit law 5)

$= \dfrac{2\lim_{x\to 2} x^2+1}{\lim_{x\to 2} x^2 + 6\lim_{x\to 2} x - 4}$ (limit laws 1, 2, 3)

$= \dfrac{2\cdot(2)^2+1}{(2)^2+(6\cdot 2)-4} = \dfrac{9}{12} = \dfrac{3}{4}$ (limit laws 7, 8, 9)

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8) $\lim_{u \to -2} \sqrt{u^4 + 3u + 6}$

$= \sqrt{\lim_{u \to -2} u^4 + 3 \lim_{u \to -2} u + 6}$ (limit laws 1, 3, 11)

$= \sqrt{(-2)^4 + 3 \cdot (-2) + 6}$ (limit laws 7, 9)

$= \sqrt{16} = 4$

11) $\lim_{x \to 2} \frac{x^2 + x - 6}{x - 2} = \lim_{x \to 2} \frac{(x+3)(x-2)}{(x-2)}$

$= \lim_{x \to 2} x + 3$

$= 5$

17) $\lim_{h \to 0} \frac{(4+h)^2 - 16}{h} = \lim_{h \to 0} \frac{16 + 8h + h^2 - 16}{h}$

$= \lim_{h \to 0} \frac{8h + h^2}{h}$

$= \lim_{h \to 0} \frac{h(8+h)}{h}$

$= \lim_{h \to 0} (8+h)$

$= 8$