# Mat 1340

Kaden Leingang

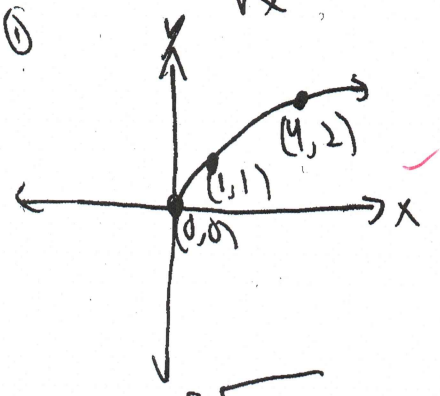


46/50 good job!

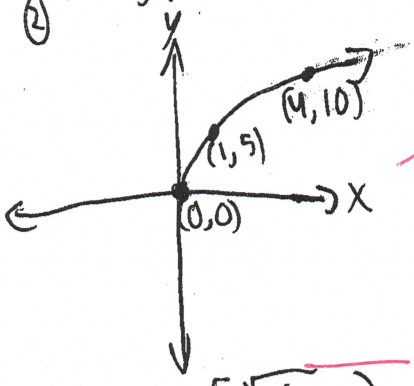
① $g(x) = 5\sqrt{3x-21} - 2$

$g(x) = 5\sqrt{3(x-7)} - 2$

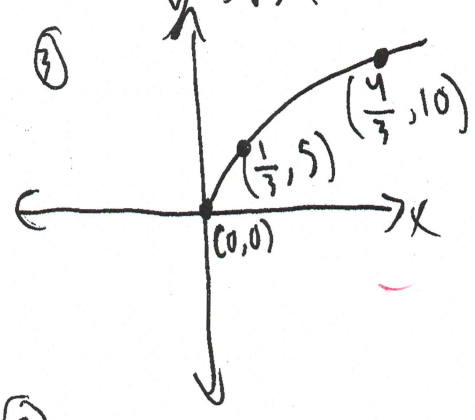
① $\sqrt{x}$



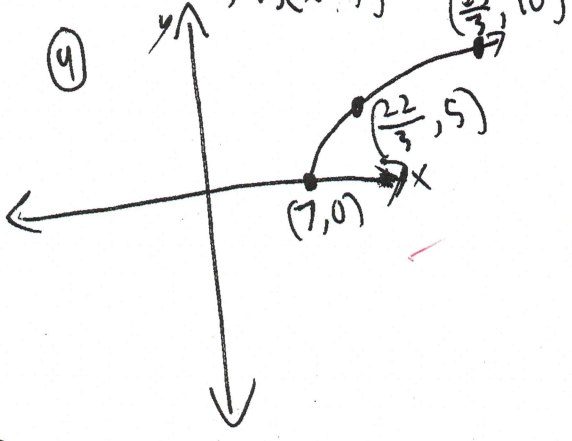

② $5\sqrt{x}$



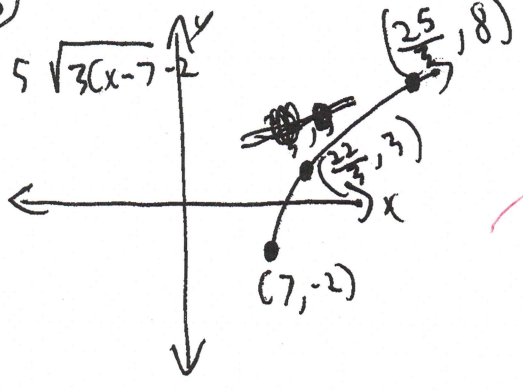

③ $5\sqrt{3x}$




④ $5\sqrt{3(x-7)}$




⑤ $5\sqrt{3(x-7)} - 2$



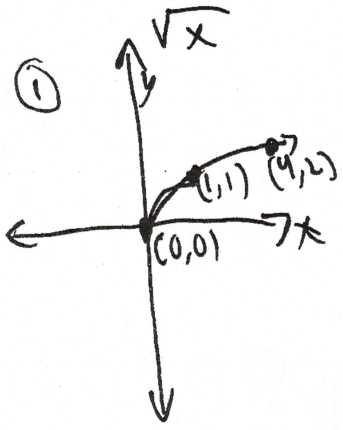

+5

# Mat 1340

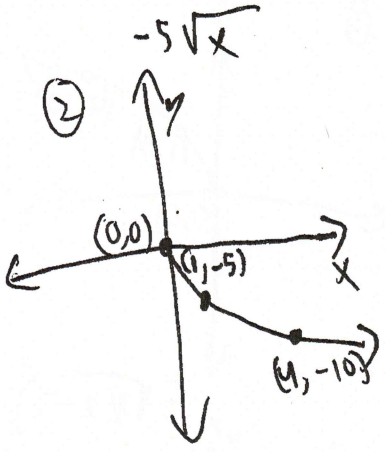
② $G(x) = -5\sqrt{3x-21}+2$

$g(x) = -5\sqrt{3(x-7)}+2$

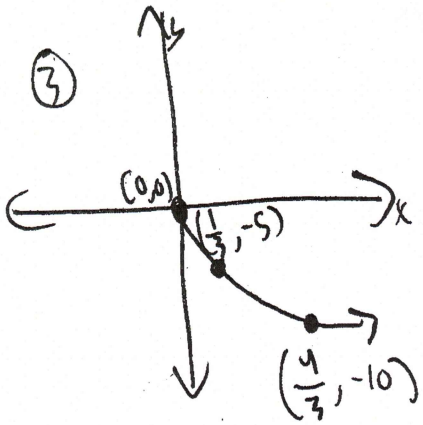
① $\sqrt{x}$



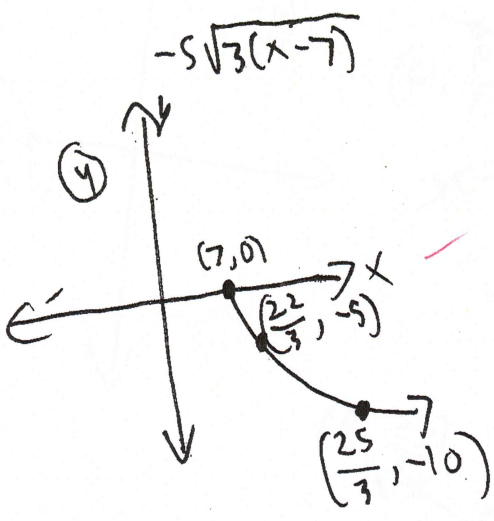

② $-5\sqrt{x}$



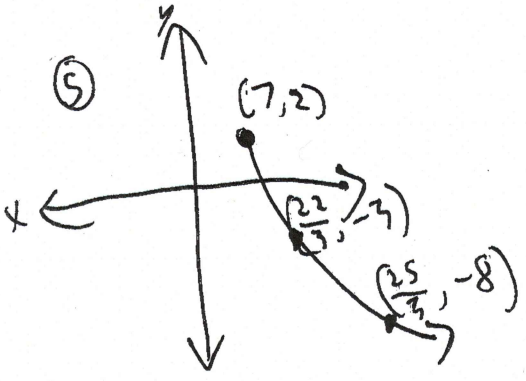

③ $-5\sqrt{3x}$




④ $-5\sqrt{3(x-7)}$




⑤ $-5\sqrt{3(x-7)}+2$

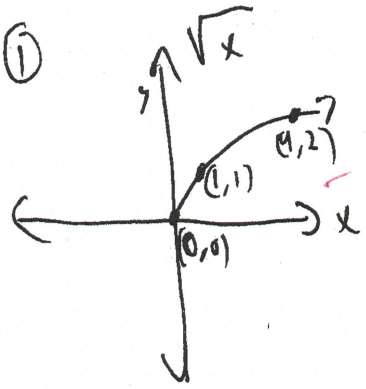



Nice!

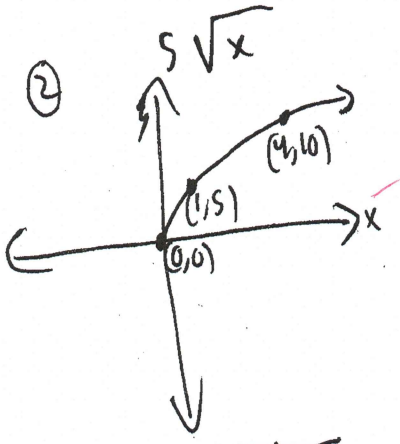
+5

③ $G(x) = 5\sqrt{-3x - 21} - 11$

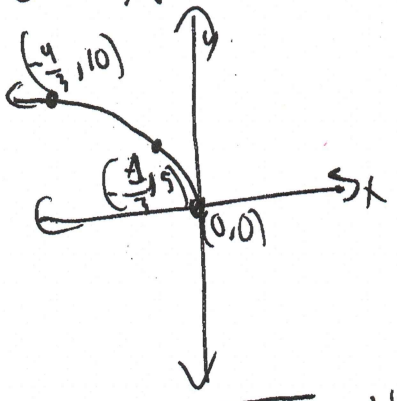
① $\sqrt{x}$



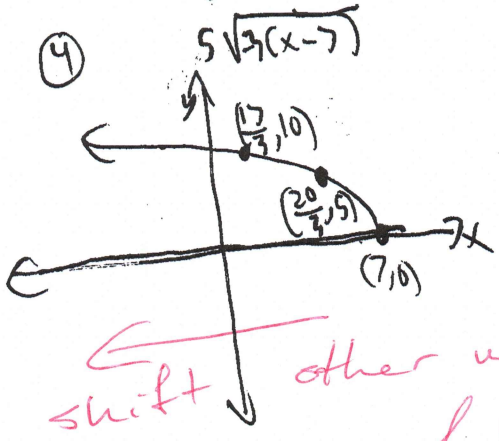

② $5\sqrt{x}$




③ $5\sqrt{-3x}$




④ $5\sqrt{-3(x-7)}$

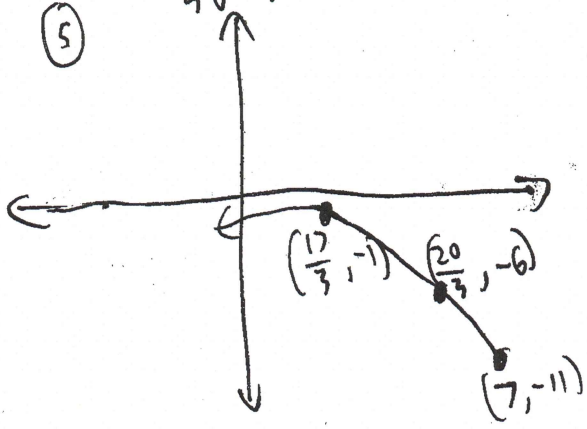



shift other way

factor: $-3x - 21$

$= -3(x + 7)$

⑤ $5\sqrt{-3x-21} - 11$

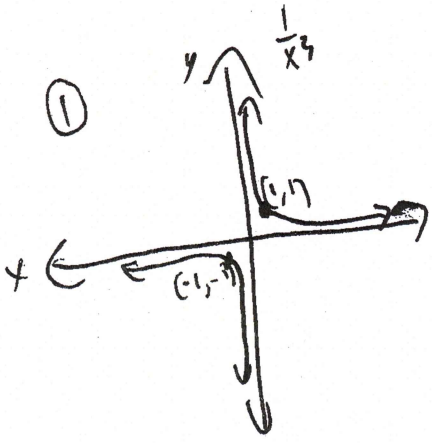



other than the shift it worked out ok.

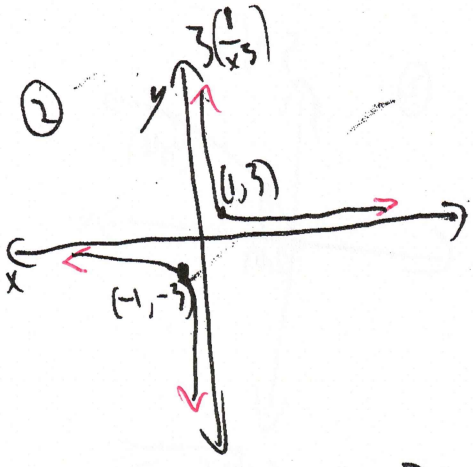
+4

④ $(g)x = \frac{3}{(-2x+8)^3} + 5 = 3\left(\frac{1}{(-2x+8)^3}\right) + 5$

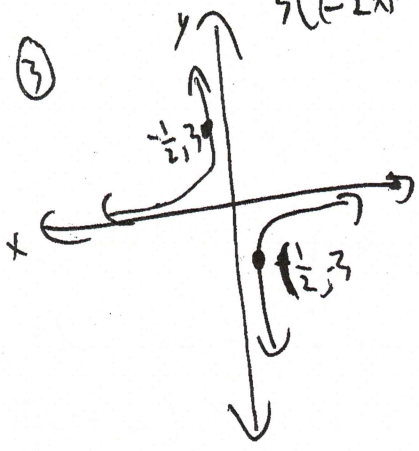
① $\frac{1}{x^3}$



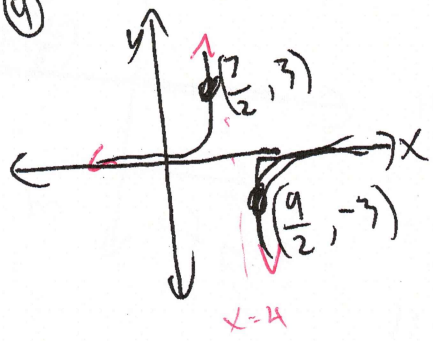

② $3\left(\frac{1}{x^3}\right)$



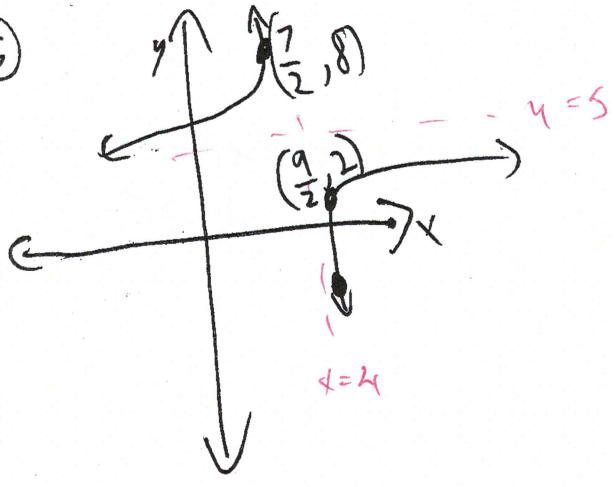

③ $3\left(\frac{1}{(-2x)^3}\right)$




④ $3\left(\frac{1}{-2(x-4)^3}\right)$




⑤

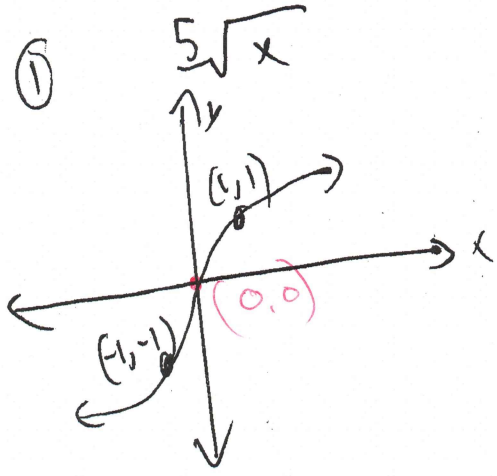



+4.5

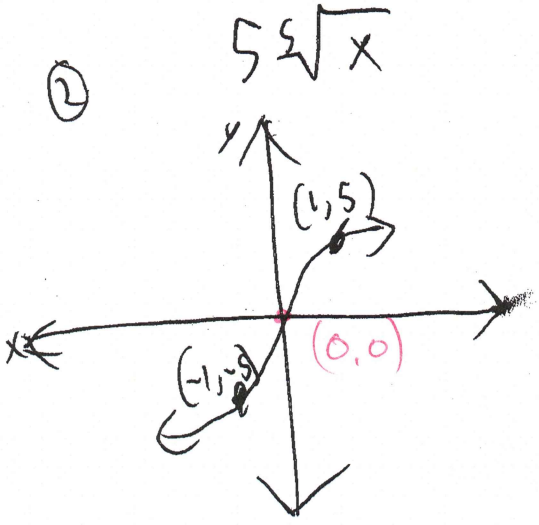
# Mat 1340

⑤ $g(x) = 5\sqrt[5]{3x+21} - 6$

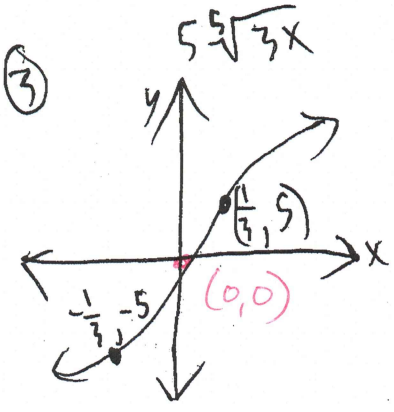
① $5\sqrt[5]{x}$



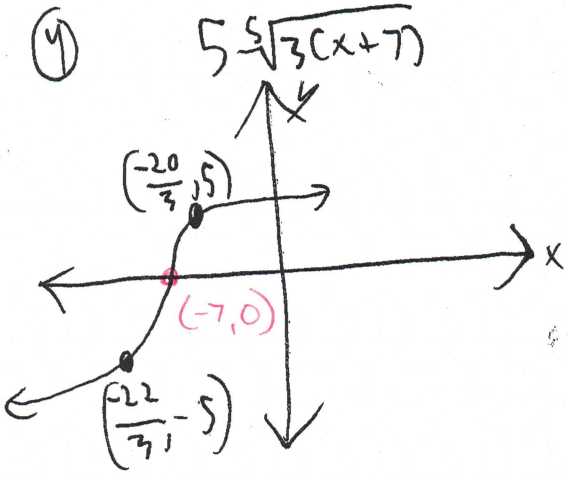

② $5\sqrt[5]{x}$




③ $5\sqrt[5]{3x}$

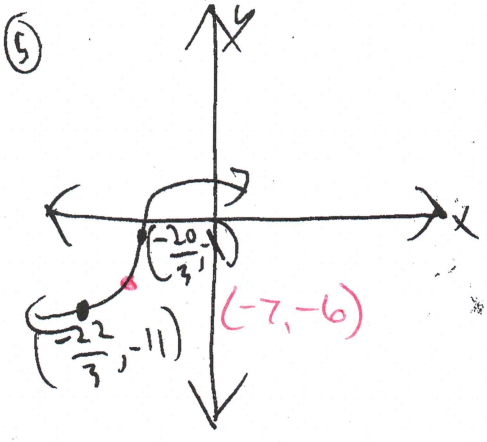



④ $5\sqrt[5]{3(x+7)}$




$5\sqrt[5]{3(x+7)} - 6$

⑤

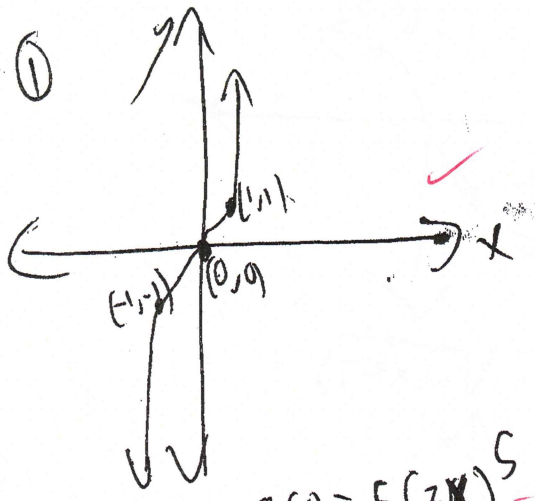



+3.5

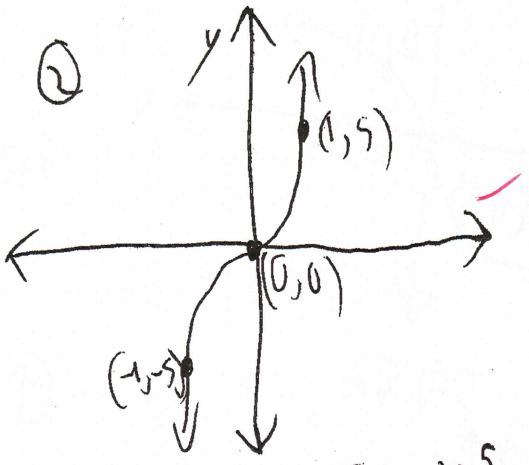
⑥ $g(x) = 5(3x+21)^5 - 6$

$5(3(x+7))^5 - 6$

① $f(x) = x^5$

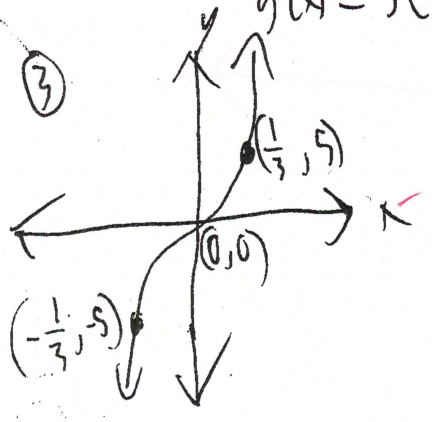



② $g(x) = 5(x)^5$

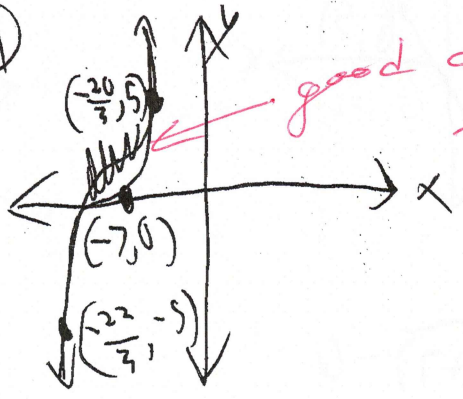



$g(x) = 5(3(x+7))^5$

③ $g(x) = 5(3x)^5$



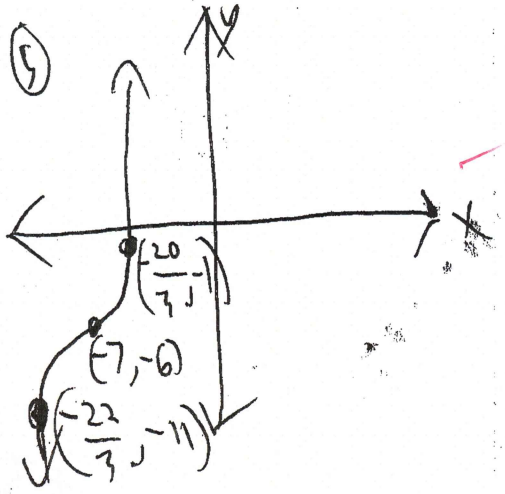

④




good catch!

$g(x) = 5(3(x+7))^5 - 6$

⑤

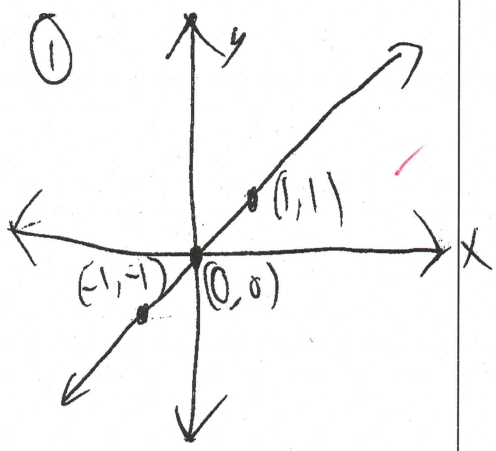



Nice!

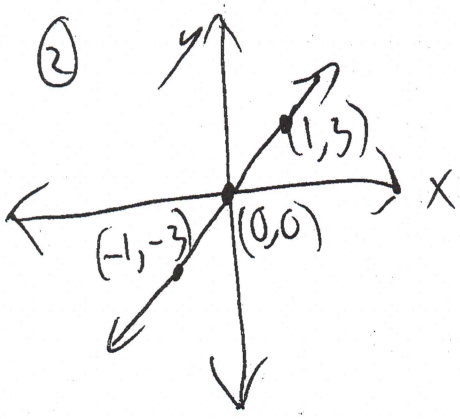
+5

⑦ $g(x) = 3(x+5) - 7$

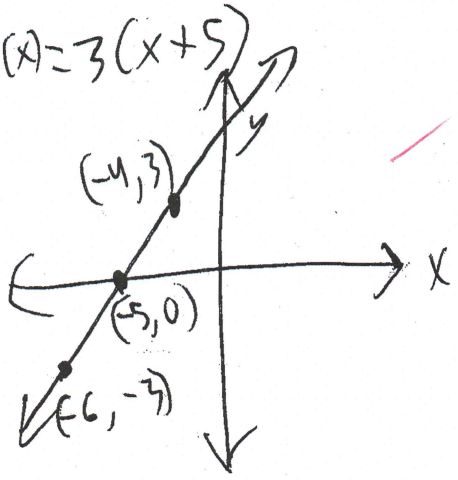
$f(x) = x$

① 

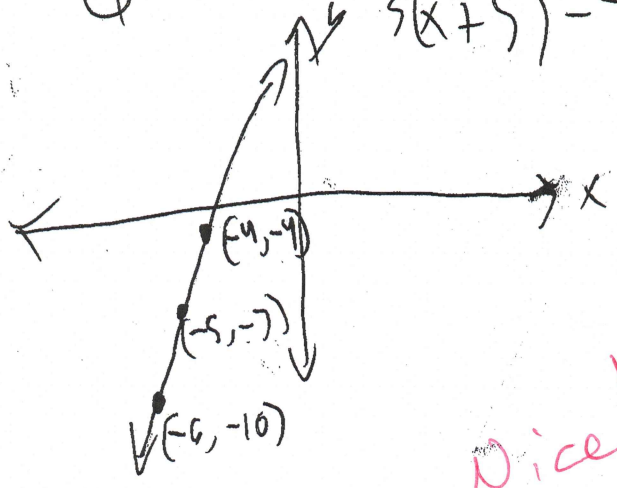

$g(x) = 3x$

② 


③ $g(x) = 3(x+5)$




④ $3(x+5) - 7 = g(x)$

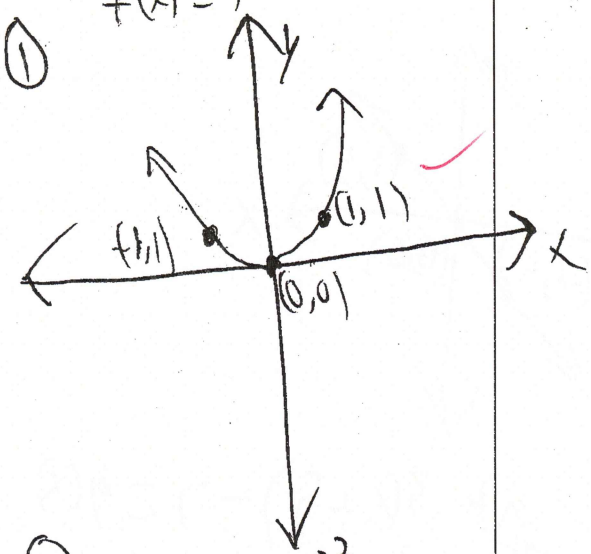



Nice!

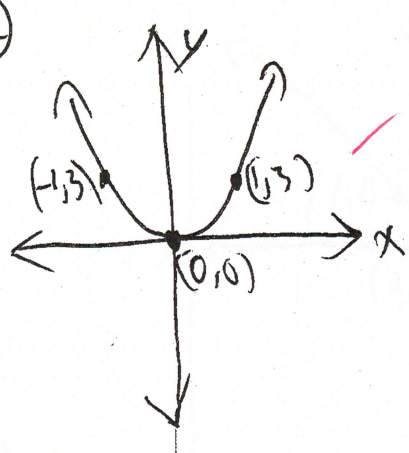
+5

⑧ $g(x) = 3(x+5)^2 - 7$

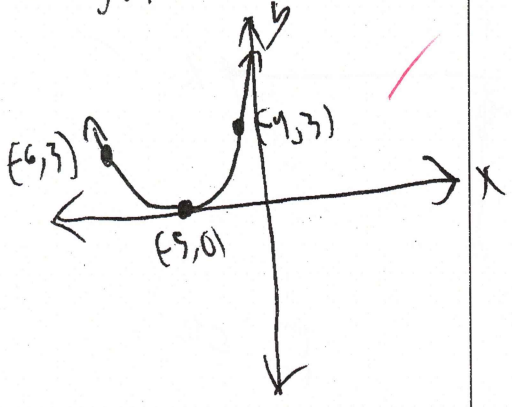
① $f(x) = x^2$



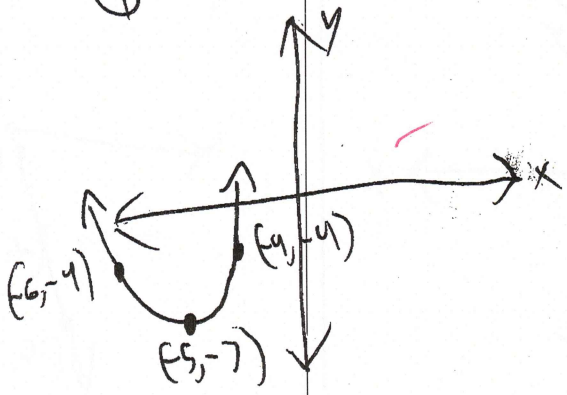

② $g(x) = 3x^2$




③ $g(x) = 3(x+5)^2$




④ $g(x) = 3(x+5)^2 - 7$




Nice!

+5

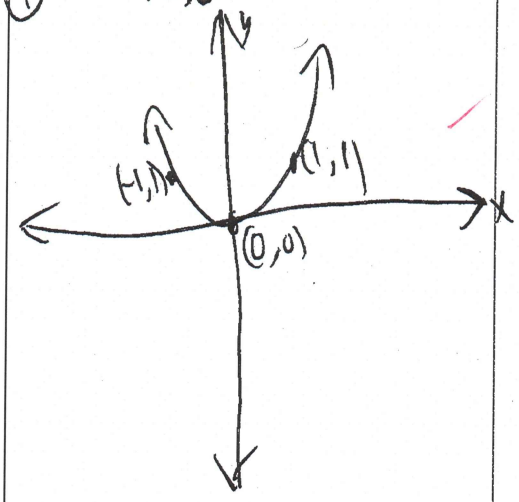
# Mat 1340



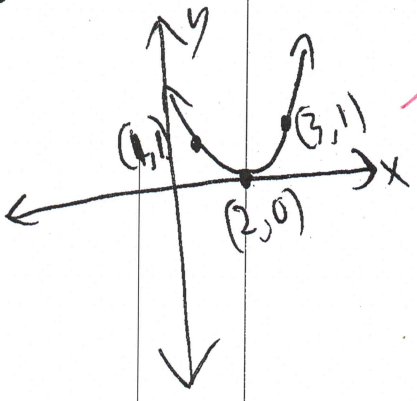
⑨ $g(x) = x^2 - 4x - 7$ → show

$= (x-2)^2 - 11$ ← how

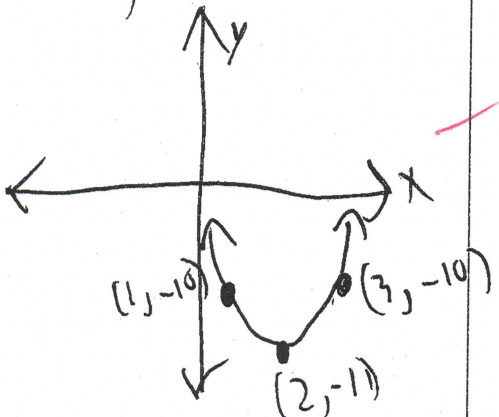
① $f(x) = x^2$




② $g(x) = (x-2)^2$




③ $g(x) = (x-2)^2 - 11$




good!

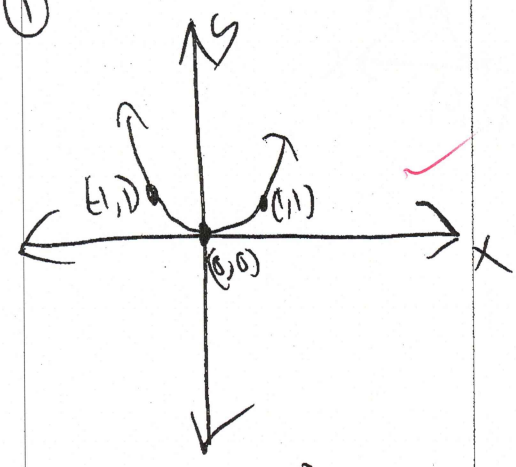
+4.5

(10) $g(x) = 4x^2 + 5x + 17$ → How?

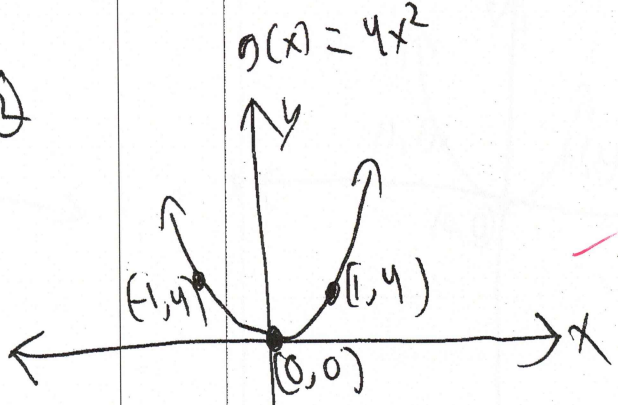
$= 4\left(\left(x+\frac{5}{8}\right)^2 + \frac{17}{4}\left(-\frac{5}{8}\right)^2\right)$

$= 4\left(x+\frac{5}{8}\right)^2 + \frac{247}{16}$

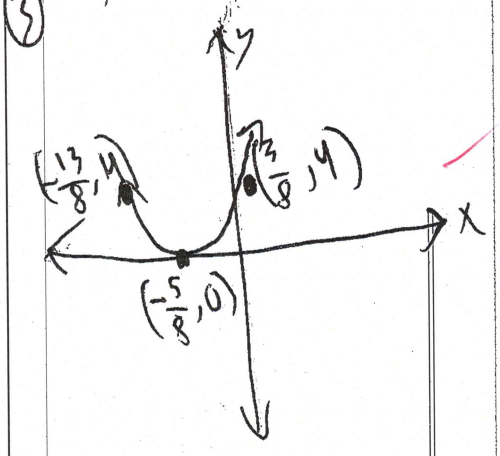
(1) $f(x) = x^2$



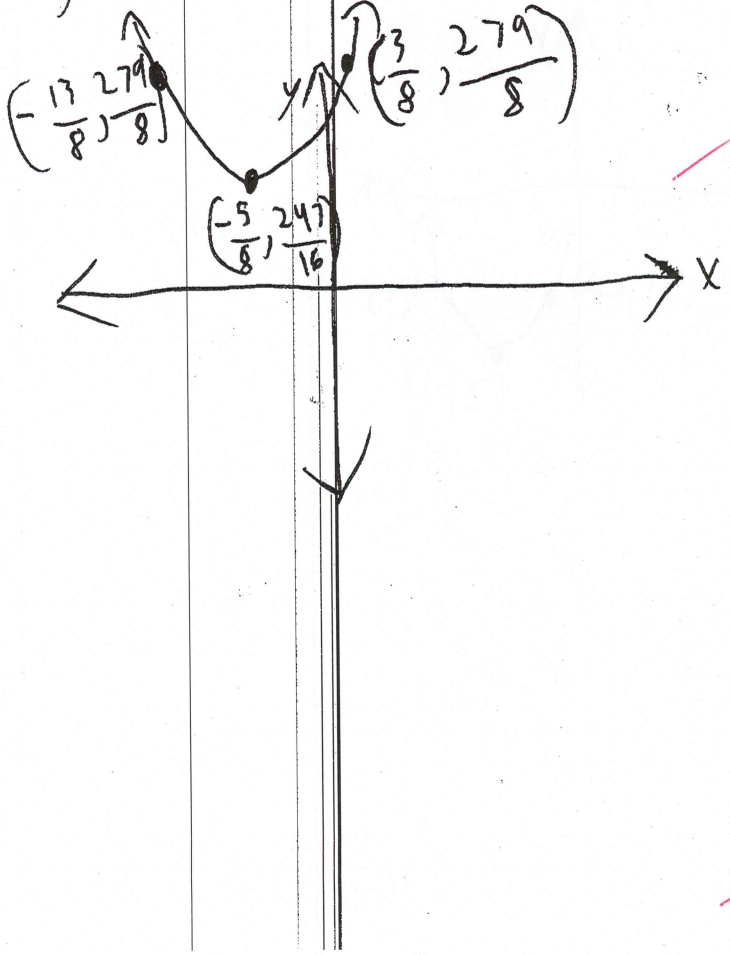

(2) $g(x) = 4x^2$




(3) $g(x) = 4\left(x+\frac{5}{8}\right)^2$




(4) $g(x) = 4\left(x+\frac{5}{8}\right)^2 + \frac{247}{16}$




+4.5