

Homework

p.432: 21, 23, 25, 29, 31, 32, 45

EVALUATE COMPOSITIONS OF FUNCTIONS Let $f(x) = 3x + 2$, $g(x) = -x^2$, and $h(x) = \frac{x-2}{5}$. Find the indicated value.

21. $g(f(2))$

23. $g(h(8))$

25. $f(f(7))$

FIND COMPOSITIONS OF FUNCTIONS Let $f(x) = 3x^{-1}$, $g(x) = 2x - 7$, and $h(x) = \frac{x+4}{3}$. Perform the indicated operation and state the domain.

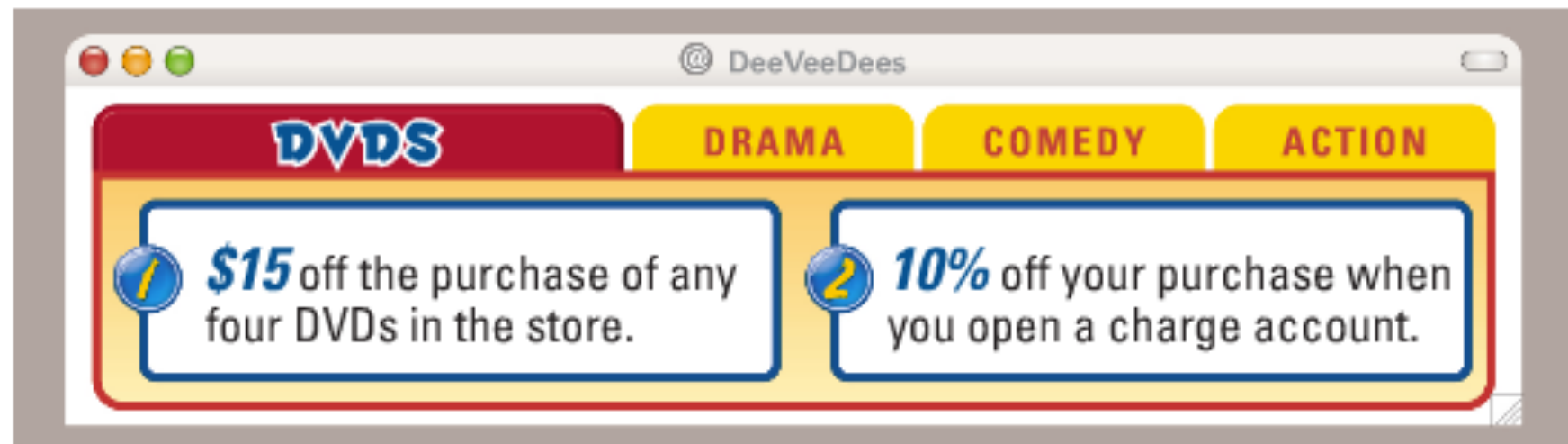
29. $g(f(x))$

31. $g(h(x))$

32. $h(g(x))$

45 on next slide!

45. **MULTI-STEP PROBLEM** An online movie store is having a sale. You decide to open a charge account and buy four DVDs.



- Use composition of functions to find the sale price of \$85 worth of DVDs when the \$15 discount is applied before the 10% discount.
- Use composition of functions to find the sale price of \$85 worth of DVDs when the 10% discount is applied before the \$15 discount.
- Which order of discounts gives you a better deal? *Explain.*