Fifth paragraph of the first page of the “To Buyer’s”: **After you have done one of the recent exams, be sure to look closely at the CAS Examiner’s Report**. **See the sample solutions in the Examiner’s Reports, and read the comments of the examiners.**

page 537, first exercise:
The entry ratio for Minor Permanent Partial and Temporary Total is: **\$100,000**/\$10,000 = 10.0.

page 983:

$$\frac{\ln(b)\ (1 - gb)}{\ln(gb)\ \{(g-1) + (1 - gb)\}} / \left\{\frac{\ln(b)\ (1 - gb)}{\ln(gb)\ \{(g-1)b + (1 - gb)\}}\right\} = \frac{(g-1)b + (1 - gb)}{(g-1) + (1 - gb)} = \frac{\mathbf{1 - b}}{g - gb} = 1/g$$

page 1210, sol. 9.73: (a) The given exceedance probability curve was stated from the perspective of the catastrophe reinsurer; the horizontal axis is the amount excess of \$10 million.
OEP is the probability that at least one event exceeds the specified loss amount in a year.
There is about a 10% probability of at least one occurrence during a year exceeding \$10 million in losses excess of \$10 million, in other words of exhausting the treaty layer.
Therefore, it should take 1/10% = 10 years to pay back. Thus the pure premium for the treaty is the full layer loss divided by the payback period: \$10,000,000 / 10 = \$1,000,000.
Remove my alternative solutions to part a.

page 1244-45: test statistic for Plan B is: 0.00935 / 0.0892 = **0.1048**.

page 1288, sol. 10.11: Since the quintiles test statistic **for Plan A** is smaller than Plan B,

page 1345, Q. 11.7: The state accident limit is 175,000.

page 1592: $E[Y^3] = E[X^3] - E[(X \wedge d)^3] - 3d\ \{E[X^2] - E[(X \wedge d)^2]\}\ \mathbf{+}\ 3d^2\ \{E[X] - E[X \wedge d]\}$.

page 1617, missing closing bracket:
$Var[S] = \lambda\ \{E[X^2 ; AP+LIM] - E[X^2 ; AP] - 2\ AP\ (E[X ; AP+LIM] - E[X ; AP])\mathbf{\}} + \gamma\ E[S]^2$

page 1617, last exercise: a reinsurer covers the layer 750 excess of 250.

page 1681, solution to the first exercise: r = 0.1.

page 1657, the numerator should be **plus** F(d) ε:

Thus the credit for a straight deductible d compared to no deductible is:

$$1 - \frac{\{E[X] - E[X \wedge d] + S(d)\,\varepsilon\}\,(1 + u)}{(E[X] + \varepsilon)\,(1 + u)} = 1 - \frac{E[X] - E[X \wedge d] + S(d)\,\varepsilon}{E[X] + \varepsilon} =$$

$$\frac{E[X] + \varepsilon - \{E[X] - E[X \wedge d] + S(d)\,\varepsilon\}}{E[X] + \varepsilon} = \frac{E[X \wedge d] + F(d)\,\varepsilon}{E[X] + \varepsilon}.$$

If there is a basic policy limit of b, then E[X] is replaced everywhere by $E[X \wedge b]$.

The credit for a straight deductible d compared to no deductible is: $\frac{E[X \wedge d] + F(d)\,\varepsilon}{E[X \wedge b] + \varepsilon.}$.

page 1683, the numerator should be **plus** F(d) ε:

If a portion of ALAE is fixed per non-zero payment, then as discussed previously the credit for a straight deductible d compared to no deductible is: $\frac{E[X \wedge d] + F(d)\,\varepsilon}{E[X \wedge b] + \varepsilon.}$.

Under uniform inflation, the credit in the later year in terms of the credits in the earlier year is:

$$\frac{(1+r)\,E[X \wedge d/(1+r)] + F(d/(1+r))\,\varepsilon(1+r)}{(1+r)\,E[X \wedge b/(1+r)] + \varepsilon(1+r).} = \frac{E[X \wedge d/(1+r)] + F(d/(1+r))\,\varepsilon}{E[X \wedge b/(1+r)] + \varepsilon.}.$$

page 1691, Q. 14.18: $E[X ; x] = \frac{\beta}{\alpha - 1}\left\{1 - \left(\frac{\beta}{\beta + x}\right)^{\alpha - 1}\right\}$, for $\alpha > 1$.

page 1692, Q. 14.22: $E[X^3 ; 250]$ = 2,590,946

page 1704, Q. 14.56: $E[X ; x] = \frac{\beta}{\alpha - 1}\left\{1 - \left(\frac{\beta}{\beta + x}\right)^{\alpha - 1}\right\}$, for $\alpha > 1$.

page 2241, line 10 of solution to the exercise:

The net insurance charge is: $E(X_{\mathbf{G}} - S_H)$ = (1)(0.188 - 0.048) = 0.140.

page 2316-17: This is the second part of the solution of Q. 20.31 (8, 11/14, Q.12)

page 2401: the rest of the solution of Q. 20.31 is ta pages 2316-2317.

page 2462, Q. 23.4: The appropriate insurance charge for the $500 million aggregate limit is 3% **of total expected loss & ALAE**.

page 2467, Q. 23.12: The appropriate insurance charge for the $500 million aggregate limit is 4% **of total expected loss & ALAE**.

Page 2100, rewrite question 17.7, (solution on the following page)

17.7. (2 points) The J. J. Evans Dynamite Factory has a retrospectively rated Workers Compensation insurance policy. The provisions of this policy are as follows:

Standard Premium	$1,000,000
Maximum Premium Factor	175%
Minimum Premium Factor	75%
Tax Multiplier	1.02
Basic Premium Factor	18.0%
Loss Conversion Factor	1.08

Six injuries of workers were covered under this policy:

Injured Worker	Paid	Case Reserve	Cause of Injury	Date of Accident
Abby	$2000	$0	Slip	8/13
Bob	$100,000	$0	Explosion	5/2
Carol	$30,000	$0	Carpal Tunnel	1/9
Dennis	$200,000	$200,000	Explosion	5/2
Emily	$100,000	$50,000	Strained Back while Lifting	10/23
Frank	$200,000	$400,000	Explosion	5/2

All of these workers are in class 4771, which has a non-ratable catastrophe element.
Determine Nassau Glassworks' retrospective premium. Show all work.
Hint: See Rule II.F in Part One of the NCCI Retrospective Rating Manual.

17.7. Maximum Premium: $1.75 million. Minimum Premium: $0.75 million.
Basic Premium: (18.0%)($1 million) = $180,000.
Rule II.F states that we should limit each multiperson accident to its two most costly claims and then limit that sum to any accident limit, which in this case is not mentioned.
We limit the result of the explosion to: $400,000 + $600,000 = $1 million
The total of reported losses are:
L = 2000 + 30,000 + 150,000 + $1 million = $1,182,000.
R = T(cL + b) = (1.02) {(1.08)$1,182,000 + $180,000} = **$1,485,691.**
Comment: The division into paid and case reserves is irrelevant.
The causes of injury and the accident dates are irrelevant, except to make it clear that three workers were injured on a single accident.