FINAL EXAM RUBRIC

**NAME:** Marit Bjornlund          W: 9 AM

(150)

## 1) Statements of Definitions and Theorems (40%)

   i. Definitions (20%):
   - (1c) Too old, Forgot Homotopy
   - (5c) Good
   - ( )
   - ( )
   - ( )

   ii. Theorems (20%):

   3t (8t) Great
   - ( )
   - ( )
   - ( )
   - ( )

## 2) Questions (20%)

   - (3f) Good
   - (3h) Good
   - ( )
   - ( )
   - ( )

## 3) Computations (40%)

   - EASY: (3m)    Good

   - MEDIUM: (2l) Some help required. Didn't reaall corr w/ sheets

   - HARD: (3s) Perfect

(A)

**NAME:** Alex Semendinger                    W: 10 am

## 1) Statements of Definitions and Theorems (40%)

i. Definitions (20%):
- 3 ○ (3c) Good
- 2 ○ (3b) Good
- ○ (2c)
- ○ (  )
- ○ (  )

150

ii. Theorems (20%):
- 0 ○ (1ℓ) Close, 0/1 insteadd of 1/2 cells
- 4 ○ (3ℓ) Good
- ○ (  )
- ○ (  )
- ○ (  )

## 2) Questions (20%)

- 7 ○ (2d) Great
- 8 ○ (2h) Great
- ○ (  )
- ○ (  )
- ○ (  )

## 3) Computations (40%)

- 5 ○ EASY: (3m)   Great

- 1 ○ MEDIUM: (1m)   Great

- 6 ○ HARD: (3n)   Perfect

# FINAL EXAM RUBRIC

**NAME:** Haley Lescinsky                    Will

B+

## 1) Statements of Definitions and Theorems (40%)

### i. Definitions (20%):    (31.2)    119

- 1 ∘ (3f) OK
- 6 ∘ (20) Messed up defn    (25)
- B4 ∘ (3i) OK
- ∘ ( )
- ∘ ( )

### ii. Theorems (20%):

- 5.5 ∘ (3K) ✗ Couldn't recall the complex    (20)
- ∘ ( )
- ∘ ( )
- ∘ ( )
- ∘ ( )

## 2) Questions (20%)

- 7 ∘ (2e) ✓
- 8 ∘ (2f) ✗ Couldn't remember quotient    (20)
- 5 ∘ (3j) ✗ Missed reduced, etc

## 3) Computations (40%)

- 2 ∘ EASY: (3h)    OK, Missing Details    (27)

- 3 ∘ MEDIUM: (3g)    OK, didn't know what well defined was    (27)

- 9 ∘ HARD: (2e)    Doesn't Know    (0)

Computation : OK

**NAME:** Ashay Patel                    W:1                    (A)
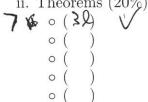
## 1) Statements of Definitions and Theorems (40%)

    i. Definitions (20%):

      4 ○ (3c) ✓
      1 ○ (2c) ✓✓
         ○ ( )
         ○ ( )
         ○ ( )

    ii. Theorems (20%):

      7 ~~6~~ ○ (3l) ✓
         ○ ( )
         ○ ( )
         ○ ( )
         ○ ( )

## 2) Questions (20%)

    2 ○ (2d) ✓ ~~✗~~ ✓
    6 ○ (3k) ⊘ ✓
       ○ ( )
       ○ ( )
       ○ ( )

## 3) Computations (40%)

    5 ○ EASY: (3d) $\mathbb{RP}^2$ ✓

    8 ~~6~~ ○ MEDIUM: (3p) ✓

Excellent in
every
Question

    3 ○ HARD: (2l) VG

# FINAL EXAM RUBRIC

**NAME:** Andrew Barry                    W:2

A−

### 1) Statements of Definitions and Theorems (40%)

i. Definitions (20%):

7   2 ∘ (3f) ✓
    1 ∘ (3D)
    8 ∘ (2C)
      ∘ (  )
      ∘ (  )

148

ii. Theorems (20%):

    4 ∘ (3t) ✓
    6 ∘ (3,2) ✓
      ∘ (  )
      ∘ (  )
      ∘ (  )

### 2) Questions (20%)

1.5 ∘ (3P) ✓
  9 ∘ (2d)  OK, didn't cite $\exists X$ s.t. $\pi_1(X) = G$
    ∘ (  )
    ∘ (  )
    ∘ (  )

### 3) Computations (40%)

7 ∘ EASY: (3k) ✓  Great

3 ∘ MEDIUM: (3g) OK, didn't remember f*#G ∂

5 ∘ HARD: (3w) ✓

(A-)

**NAME:** Chetun Patel          W: 4

1.35

### 1) Statements of Definitions and Theorems (40%)

    i. Definitions (20%):

      1  ∘ $2c$ )  ✓

      4  ∘ ($3i$ ) ✓

        ∘ ( )

        ∘ ( )

        ∘ ( )

             20%

    ii. Theorems (20%):

      7 ∘ ($3q$ ) ✓

       ∘ ( )

       ∘ ( )

       ∘ ( )

       ∘ ( )

           20%

### 2) Questions (20%)

    2 ∘ ($2d$) OK   Didn't cite   $\exists X$ s.t. $\pi_1(X) = G$

    5 ∘ ($3j$ ) ✓         5%

    8 ∘ ($3r$) ✓

      ∘ ( )

      ∘ ( )

### 3) Computations (40%)

  6  ∘ EASY: ($3m$   ✓

        $3r$  ✓

  3 ∘ MEDIUM: ($2l$)   OK—    30%

               ✓   Quite Problematic, 2-sheeted was cosets ✓

                  Not using normality of index 2,

                    etc.

  9 ∘ HARD: ($3o$ )   ✓

# FINAL EXAM RUBRIC

(A)

NAME: Molly Knoedler          R: 11

## 1) Statements of Definitions and Theorems (40%)

i. Definitions (20%):
1  ○ (1a) OK
3  ○ (1j) OK
   ○ (   )
   ○ (   )
   ○ (   )

ii. Theorems (20%):
5  ○ (3g) Good
7  ○ (3ℓ) Good
   ○ (   )
   ○ (   )
   ○ (   )

## 2) Questions (20%)

2  ○ (1b) OK
   ○ (   )
   ○ (   )
   ○ (   )
   ○ (   )

## 3) Computations (40%)

6  ○ EASY: (3r) Great

4  ○ MEDIUM: (1m) Ok, some hesitation

8  ○ HARD: (3n) Good!

# FINAL EXAM RUBRIC

**NAME:** Henry Lane      R: 1

*(B+)*

*(136)*

## 1) Statements of Definitions and Theorems (40%)

i. Definitions (20%):

1   ○ (8c) ... ?? ✗
3   ○ (2e) ✓
6   ○ (3f) ✓
   ○ ( )
   ○ ( )

ii. Theorems (20%):

4 ○ (2j1) ✓
1 ○ (2j2) OK
8 ○ (3t) Meh
  ○ ( )
  ○ ( )

## 2) Questions (20%)

2 ○ (2d)
   ○ ( )
   ○ ( )
   ○ ( )
   ○ ( )

## 3) Computations (40%)

5 ○ EASY: (2k)    Meh

7 ○ MEDIUM: (3g)   Ker ✓      Im OK
$$f_{\#} \circ \partial = \partial \circ f_{\#}$$

9 ○ HARD: (3u)   With some coaxing, OK

**NAME:** Trevin Corsinglia          R:2

(B+)

## 1) Statements of Definitions and Theorems (40%)

(125)

80%

  i. Definitions (20%):
1  ○ (3b) ✓
2  ○ (3c) ✓
   ○ (   )
   ○ (   )
   ○ (   )

  ii. Theorems (20%):
4  ○ (3t) ✓
6  ○ (3q) $(X \backslash Z, A \cap Z) \hookrightarrow (X, A)$ ✓
   ○ (   )
   ○ (   )
   ○ (   )

## 2) Questions (20%)

7  ○ (2h) ✓
9  ○ (2d) ✓
   ○ (   )
   ○ (   )
   ○ (   )

## 3) Computations (40%)

3  ○ EASY: (3d) ~~RP2~~ $\mathbb{RP}^2$
                $a \sim b, c$
                   "OK, Stumbling"

$\mathbb{Z}^2 / \mathbb{Z} * \mathbb{Z}$   (-10%)
depends
on embedding

8  ○ MEDIUM: (2l)
        Didn't get ⌐7
           to
           it

(-10%)

5  ○ HARD: (3n)

OK⌐, A lot of help required          ▽ ½
    Questionable logic

B-

NAME: Michael Zuo          R:#3

## 1) Statements of Definitions and Theorems (40%)

70%

### i. Definitions (20%):
- 1 ○ (3K) Good pair ✓ Doesn't recall $(X,A)$
- ○ ( )
- ○ ( )
- ○ ( )
- ○ ( )

15%

### ii. Theorems (20%):
- 2 ○ (3ℓ) ok mixed $X \leftrightarrow A$
- 5 ○ (3t) $X = U \cup V$ didn't know the sequence ✗
- 7 ○ (1g) Free Product? No relations ...
- ○ ( )
- ○ ( )

10%

## 2) Questions (20%)

- 4 ○ (3j) ✓
- ○ ( )
- ○ ( )
- ○ ( )
- ○ ( )

20%

## 3) Computations (40%)

8 ○ EASY: (2. ) How can you compute $\pi_1(\bigvee_i X_i)$?

Fine

10%

3 ○ MEDIUM: (3σ) Some help, 5-lemma? Then got it

7.5%

6 ○ HARD: (3u)

OK, Got it with help on maps and exactness

7.5%

# FINAL EXAM RUBRIC

$(C+)$

NAME: Emilia Welch

RDBF:10

**1) Statements of Definitions and Theorems (40%)** (70%)

    i. Definitions (20%):

      1 ○ (3c) ✓

        ○ ( )

        ○ ( )

        ○ ( )

        ○ ( )

    ii. Theorems (20%):

      2 ○ (3g) Good $\overline{Z} \subseteq \mathring{A}$

      5 ○ (3l) Meh

      7 ○ (2j1)

      8 ○ (2j2)

        ○ ( )

**2) Questions (20%)**

    4 ○ (3e) Bad

      ○ ( )        $(-10\%)$

      ○ ( )

      ○ ( )

      ○ ( )

**3) Computations (40%)**

    3 ○ EASY: (3r) Bad, needs help, doesn't know excision  $(-10\%)$

    6 ○ MEDIUM: (3m) Using LES  $(-10\%)$

    9 ○ HARD: (2l) Didn't get to...

**NAME:** Weitao Zhu                    F : 11                    Ⓐ

## 1) Statements of Definitions and Theorems (40%)

    i. Definitions (20%):                    100%

      1 ∘ (3c) ✓
      7 ∘ (1c) ✓
      8 ∘ (1d) ✓
      ∘ (   )
      ∘ (   )

    ii. Theorems (20%):

      3 ∘ (3ℓ) ✗ ✓
      9 ∘ (1ℓ)
      ∘ (   )
      ∘ (   )
      ∘ (   )

## 2) Questions (20%)

    2 ∘ (3e) ⊿ ⊕ℓc ✓
    5 ∘ (3t) ✓
    ∘ (   )
    ∘ (   )
    ∘ (   )

## 3) Computations (40%)

    4 ∘ EASY: (3m) ✓

    10 ∘ MEDIUM: (1m) ✓

    6 ∘ HARD: (3u) ✓

(A+)

FINAL EXAM RUBRIC

**NAME:** Daishiro Nishida        F:1

1) **Statements of Definitions and Theorems (40%)**

    i. Definitions (20%):
       1 ○ (|e) ✓
       4 ○ (3c) ✓
       5 ○ (3k) ✓
       ○ ( )
       ○ ( )

    ii. Theorems (20%):
       6 ○ (3q) ✓
       8 ○ (3t)
       ○ ( )
       ○ ( )
       ○ ( )

2) **Questions (20%)**

    2 ○ (1f) ✓
    ○ ( )
    ○ ( )
    ○ ( )
    ○ ( )

3) **Computations (40%)**

    7 ○ EASY: (3r) ✓

    3 ○ MEDIUM: (1m) √G

    9 ○ HARD: (3w)

# FINAL EXAM RUBRIC

## NAME: Gus Beirne                    F:2

### 1) Statements of Definitions and Theorems (40%)    85%

    i. Definitions (20%):
      1  ○ (3c) ✓
      7  ○ (1c )
      8  ○ (1d) slow
         ○ (    )
         ○ (    )

    ii. Theorems (20%): ✓
      3  ○ (3ℓ) OK ✓
      9  ○ (1ℓ)
         ○ (    )
         ○ (    )
         ○ (    )

### 2) Questions (20%)

      2  ○ (3e) ✓
      5  ○ (3f)
         ○ (    )
         ○ (    )
         ○ (    )

### 3) Computations (40%)

      4  ○ EASY: (3m)   Mch

      10 ○ MEDIUM: (1m)  Not quite to

      6  ○ HARD: (3m)   Close

# FINAL EXAM RUBRIC

NAME: Michael Curran          F:3          (A)

## 1) Statements of Definitions and Theorems (40%)

   i. Definitions (20%):          95%
    1 ∘ (3s) ✓
    3 ∘ (3k) ✓
     ∘ ( )
     ∘ ( )
     ∘ ( )

   ii. Theorems (20%):
    6 ∘ (3t) ✓
    7 ∘ (2jl) ∨
    8 ∘ (2js) ∨
     ∘ ( )
     ∘ ( )

## 2) Questions (20%)

  5 ∘ (3e) ✓
   ∘ ( )
   ∘ ( )
   ∘ ( )
   ∘ ( )

## 3) Computations (40%)

  2 ∘ EASY: (3g) ✓


  4 ∘ MEDIUM: (3o) ∨


            (-5%)

  9 ∘ HARD: (3l) Very little help required

# FINAL EXAM RUBRIC

**NAME:** Lev Schechter          F: 4

1) **Statements of Definitions and Theorems (40%)**

   i. Definitions (20%):
   
   1 o (1e) ✓
   4 o (3c) ✗      (-5%)
   5 o (3k) ✓
     o ( )
     o ( )

   ii. Theorems (20%):
   
   6 o (3q)      ✓
   8 o ~~(3q)~~ ≈      (-5%)
     o (3g)
     o ( )
     o ( )

2) **Questions (20%)**

   2 o (1f) ✓
     o ( )
     o ( )
     o ( )
     o ( )

3) **Computations (40%)**

   7 o EASY: (3r)  ≈      (-10%)

   3 o MEDIUM: (1l)      (-10%)

   9 o HARD: (3u)  Didn't get to.

## NAME: Beatrix Haddock   F:5  (A)

### 1) Statements of Definitions and Theorems (40%)

     i. Definitions (20%):

      1 ○ (3c) ✓
      2 ○ (3k) ✓
        ○ (  )
        ○ (  )
        ○ (  )

     ii. Theorems (20%):

      3 ○ (3ℓ) ✓
        ○ (  )
        ○ (  )
        ○ (  )
        ○ (  )

### 2) Questions (20%)

     6 ○ (3j) ✓
     7 ○ (3ℓ) ✓
       ○ (  )
       ○ (  )
       ○ (  )

### 3) Computations (40%)

    4 ○ EASY: (3m)   Excellent

    5 ○ MEDIUM: (3p1) ✓
          2

    8 ○ HARD: (1m) ✓