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| The name of the exam 22 gennaio 2022 | Prof. | Firma leggibile dello studente |
| Cognome: | Nome: | Matricola: |

INSTRUCTIONS

- Write here your instructions
- two
- three

Part One

SOME EXERCISES FROM 2 FILES

1. (1 punto) exercise 2a $a = 4, b = 2, c = 7$

- (a) answer 5 wrong
- (b) answer 4 wrong
- (c) answer 2 wrong
- (d) answer 3 wrong
- (e) answer 1 correct

2. (2 punti) exercise 3b $a = 2, b = 3, c = 6$

- (a) answer 2 wrong
- (b) answer 4 wrong
- (c) answer 1 correct
- (d) answer 5 wrong
- (e) answer 3 wrong

3. (1 punto) exercise 2b $a = 3, b = 3, c = 5$

- (a) answer 2 wrong
- (b) answer 4 wrong
- (c) answer 5 wrong
- (d) answer 3 wrong
- (e) answer 1 correct

4. (1 punto) exercise 2c $a = 3, b = 5, c = 6$

- (a) answer 1 correct
- (b) answer 4 wrong
- (c) answer 2 wrong
- (d) answer 5 wrong
- (e) answer 3 wrong

5. (2 punti) exercise 3a $a = 5, b = 3, c = 3$

- (a) answer 1 correct
- (b) answer 5 wrong
- (c) answer 4 wrong
- (d) answer 2 wrong
- (e) answer 3 wrong

6. (1 punto) exercise 1a $a = 7$

- (a) answer 3 wrong
- (b) answer 2 wrong
- (c) answer 1 correct

7. (2 punti) exercise 9b $a = 3, b = 5, c = 3$

- (a) answer 3 wrong
- (b) answer 1 correct
- (c) answer 2 wrong
- (d) answer 4 wrong
- (e) answer 5 wrong

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| 15 punti |
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8. (1 punto) exercise 14a $a = 3, b = 5, c = 5$
 $alpha_i = 11, alpha_{ii} = 5$

- (a) answer 5 wrong
- (b) answer 3 wrong
- (c) answer 2 wrong
- (d) answer 1 correct
- (e) answer 4 wrong

9. (1 punto) exercise 4e $a = 2, b = 5, c = 7$

- (a) answer 2 wrong
- (b) answer 4 wrong
- (c) answer 5 wrong
- (d) answer 3 wrong
- (e) answer 1 correct

10. (1 punto) $a = 15, b = 15, c = 3, k = 5$
Evaluate with two exact decimals

$$15 : 5 = \boxed{}$$

ALL THE PROBLEMS OF A FILE

11. (1 punto) exercise 11a

$\{b, c, y\}$

- (a) answer 1 correct
- (b) answer 3 wrong

(c) answer 2 wrong

12. (1 punto) exercise 11b

$\{a, b, c\}$

- (a) answer 3 wrong
- (b) answer 1 correct
- (c) answer 2 wrong

SOME OTHER QUESTIONS

1. (1 punto) exercise 12a $a = 3, b = 5, c = 6$

- (a) answer 1 correct
- (b) answer 4 wrong
- (c) answer 3 wrong
- (d) answer 2 wrong
- (e) answer 5 wrong

2. (2 punti) exercise 13b $a = 4, b = 4, c = 6$

- (a) answer 2 wrong
- (b) answer 3 wrong
- (c) answer 4 wrong
- (d) answer 5 wrong
- (e) answer 1 correct

Part two

Some other instructions.

ESERCIZIO 1. Let $A = \{a,b,c\}$ and $B = \{a,c,x\}$.

- (a) (2 punti) List (without repetition) the elements of the set $A \cup B$
 $A \cup B =$

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| 4 punti |

- (b) (2 punti) List (without repetition) the elements of the set $A \cap B$
 $A \cap B =$

An example of matching question.

ESERCIZIO 2.

$a = 5, b = 4, c = 6$

___ 5×4

(A) 20

___ $5 + 4$

(B) 1

___ $6 - 5$

(C) 9

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| <i>3 punti</i> |

An example of “tabella” question.

ESERCIZIO 3. Solve the following equations:

| Equation | |
|---------------------|--|
| $x^2 + 7x + 10 = 0$ | |
| $x^2 - 7x + 10 = 0$ | |
| $x^2 + 3x - 10 = 0$ | |
| $x^2 - 3x - 10 = 0$ | |

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| <i>4 punti</i> |

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Part One

SOME EXERCISES FROM 2 FILES

1. (1 punto) exercise 2c $a = 2, b = 2, c = 5$

- (a) answer 5 wrong
- (b) answer 4 wrong
- (c) answer 3 wrong
- (d) answer 1 correct
- (e) answer 2 wrong

2. (2 punti) exercise 3a $a = 2, b = 2, c = 3$

- (a) answer 1 correct
- (b) answer 4 wrong
- (c) answer 5 wrong
- (d) answer 2 wrong
- (e) answer 3 wrong

3. (1 punto) exercise 2b $a = 4, b = 3, c = 8$

- (a) answer 2 wrong
- (b) answer 3 wrong
- (c) answer 1 correct
- (d) answer 5 wrong
- (e) answer 4 wrong

4. (2 punti) exercise 3d $a = 5, b = 4, c = 4$

- (a) answer 2 wrong
- (b) answer 1 correct
- (c) answer 5 wrong
- (d) answer 4 wrong
- (e) answer 3 wrong

5. (1 punto) exercise 2a $a = 3, b = 3, c = 3$

- (a) answer 3 wrong
- (b) answer 2 wrong
- (c) answer 5 wrong
- (d) answer 1 correct
- (e) answer 4 wrong

6. (1 punto) exercise 1b $a = 2$

- (a) answer 1 correct
- (b) answer 3 wrong
- (c) answer 2 wrong

7. (1 punto) $a = 14, b = 14, c = 4, k = 5$

Evaluate with two exact decimals

$$14 : 4 =$$

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| 15 punti |
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8. (2 punti) exercise 9c $a = 5, b = 3, c = 8$

- (a) answer 1 correct
- (b) answer 5 wrong
- (c) answer 4 wrong
- (d) answer 3 wrong
- (e) answer 2 wrong

9. (1 punto) exercise 14a $a = 3, b = 3, c = 2$
 $\alpha_i = 5 \alpha_{ii} = 7$

- (a) answer 3 wrong
- (b) answer 1 correct
- (c) answer 4 wrong
- (d) answer 5 wrong
- (e) answer 2 wrong

10. (1 punto) exercise 4b $a = 5, b = 5, c = 2$

- (a) answer 5 wrong
- (b) answer 1 correct
- (c) answer 3 wrong
- (d) answer 2 wrong
- (e) answer 4 wrong

ALL THE PROBLEMS OF A FILE

11. (1 punto) exercise 11b

$\{c, y, z\}$

- (a) answer 3 wrong

(b) answer 2 wrong

(c) answer 1 correct

12. (1 punto) exercise 11a

$\{a, c, x\}$

(a) answer 3 wrong

(b) answer 2 wrong

(c) answer 1 correct

SOME OTHER QUESTIONS

1. (2 punti) exercise 13c $a = 5, b = 5, c = 8$

(a) answer 1 correct

(b) answer 2 wrong

(c) answer 3 wrong

(d) answer 4 wrong

(e) answer 5 wrong

2. (1 punto) exercise 12c $a = 4, b = 2, c = 5$

(a) answer 2 wrong

(b) answer 5 wrong

(c) answer 3 wrong

(d) answer 1 correct

(e) answer 4 wrong

Part two

Some other instructions.

ESERCIZIO 1. Let $A = \{a,b,c\}$ and $B = \{a,c,y\}$.

- (a) (2 punti) List (without repetition) the elements of the set $A \cup B$
 $A \cup B =$

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| 4 punti |

- (b) (2 punti) List (without repetition) the elements of the set $A \cap B$
 $A \cap B =$

An example of matching question.

ESERCIZIO 2. $a = 12, b = 14, c = 4$

- | | | | |
|-----|----------------|-----|-----|
| ___ | 12×14 | (A) | 168 |
| ___ | 12×14 | (B) | 168 |
| ___ | 12×14 | (C) | 168 |
| ___ | $48 : 12$ | (D) | 256 |
| ___ | 4^4 | (E) | 4 |

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| <i>3 punti</i> |
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An example of “tabella” question.

ESERCIZIO 3. Complete the following table of derivatives:

| Function | |
|-----------------|--|
| $f(x) = x^2$ | |
| $f(x) = \sin x$ | |
| $f(x) = \cos x$ | |

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| 5 punti |

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Part One

SOME EXERCISES FROM 2 FILES

1. (1 punto) exercise 2c $a = 5, b = 5, c = 2$

- (a) answer 1 correct
- (b) answer 2 wrong
- (c) answer 3 wrong
- (d) answer 4 wrong
- (e) answer 5 wrong

2. (2 punti) exercise 3a $a = 5, b = 4, c = 4$

- (a) answer 1 correct
- (b) answer 4 wrong
- (c) answer 3 wrong
- (d) answer 2 wrong
- (e) answer 5 wrong

3. (1 punto) exercise 2a $a = 2, b = 5, c = 5$

- (a) answer 1 correct
- (b) answer 2 wrong
- (c) answer 4 wrong
- (d) answer 3 wrong
- (e) answer 5 wrong

4. (2 punti) exercise 3b $a = 5, b = 5, c = 8$

- (a) answer 4 wrong
- (b) answer 5 wrong
- (c) answer 1 correct
- (d) answer 3 wrong
- (e) answer 2 wrong

5. (1 punto) exercise 2b $a = 5, b = 2, c = 6$

- (a) answer 4 wrong
- (b) answer 3 wrong
- (c) answer 1 correct
- (d) answer 2 wrong
- (e) answer 5 wrong

6. (1 punto) exercise 14a $a = 4, b = 3, c = 7$
 $\alpha_i = 3 \alpha_{ii} = 11$

- (a) answer 3 wrong
- (b) answer 1 correct
- (c) answer 5 wrong
- (d) answer 2 wrong
- (e) answer 4 wrong

7. (1 punto) $a = 13, b = 13, c = 3, k = 4$

Evaluate with two exact decimals

$$13 : 4 =$$

| |
|----------|
| 15 punti |
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8. (1 punto) exercise 4c $a = 3, b = 2, c = 8$

- (a) answer 1 correct
- (b) answer 3 wrong
- (c) answer 2 wrong
- (d) answer 4 wrong
- (e) answer 5 wrong

9. (1 punto) exercise 1a $a = 3$

- (a) answer 3 wrong
- (b) answer 2 wrong
- (c) answer 1 correct

10. (2 punti) exercise 9d $a = 3, b = 3, c = 5$

- (a) answer 1 correct
- (b) answer 2 wrong
- (c) answer 5 wrong
- (d) answer 4 wrong
- (e) answer 3 wrong

ALL THE PROBLEMS OF A FILE

11. (1 punto) exercise 11b

$\{a, b, c\}$

- (a) answer 3 wrong
- (b) answer 1 correct

(c) answer 2 wrong

12. (1 punto) exercise 11a

$\{a, b, x\}$

- (a) answer 1 correct
- (b) answer 2 wrong
- (c) answer 3 wrong

SOME OTHER QUESTIONS

1. (1 punto) exercise 12a $a = 3, b = 5, c = 3$

- (a) answer 5 wrong
- (b) answer 1 correct
- (c) answer 4 wrong
- (d) answer 3 wrong
- (e) answer 2 wrong

2. (2 punti) exercise 13d $a = 3, b = 4, c = 6$

- (a) answer 3 wrong
- (b) answer 2 wrong
- (c) answer 4 wrong
- (d) answer 1 correct
- (e) answer 5 wrong

Part two

Some other instructions.

ESERCIZIO 1. Let $A = \{a,b,c\}$ and $B = \{a,c,y\}$.

- (a) (2 punti) List (without repetition) the elements of the set $A \cup B$
 $A \cup B =$

| |
|---------|
| |
| 4 punti |

- (b) (2 punti) List (without repetition) the elements of the set $A \cap B$
 $A \cap B =$

An example of matching question.

ESERCIZIO 2.

$a = 4$, $b = 3$, $c = 7$

___ 4×3

(A) 12

___ $4 + 3$

(B) 7

___ $7 - 4$

(C) 3

| |
|----------------|
| |
| <i>3 punti</i> |

An example of “tabella” question.

ESERCIZIO 3. Solve the following equations:

| Equation | |
|---------------------|--|
| $x^2 + 9x + 14 = 0$ | |
| $x^2 - 9x + 14 = 0$ | |
| $x^2 + 5x - 14 = 0$ | |
| $x^2 - 5x - 14 = 0$ | |

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| |
| <i>4 punti</i> |

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Part One

SOME EXERCISES FROM 2 FILES

1. (1 punto) exercise 2b $a = 3, b = 2, c = 6$

- (a) answer 1 correct
- (b) answer 2 wrong
- (c) answer 5 wrong
- (d) answer 3 wrong
- (e) answer 4 wrong

2. (1 punto) exercise 2a $a = 3, b = 5, c = 6$

- (a) answer 5 wrong
- (b) answer 4 wrong
- (c) answer 2 wrong
- (d) answer 3 wrong
- (e) answer 1 correct

3. (2 punti) exercise 3a $a = 4, b = 4, c = 5$

- (a) answer 5 wrong
- (b) answer 4 wrong
- (c) answer 3 wrong
- (d) answer 1 correct
- (e) answer 2 wrong

4. (2 punti) exercise 3b $a = 3, b = 5, c = 3$

- (a) answer 5 wrong
- (b) answer 3 wrong
- (c) answer 2 wrong
- (d) answer 4 wrong
- (e) answer 1 correct

5. (1 punto) exercise 2c $a = 4, b = 2, c = 6$

- (a) answer 1 correct
- (b) answer 2 wrong
- (c) answer 3 wrong
- (d) answer 4 wrong
- (e) answer 5 wrong

6. (1 punto) exercise 4e $a = 2, b = 5, c = 7$

- (a) answer 5 wrong
- (b) answer 2 wrong
- (c) answer 1 correct
- (d) answer 4 wrong
- (e) answer 3 wrong

7. (2 punti) exercise 9c $a = 2, b = 3, c = 4$

- (a) answer 4 wrong
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| |
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| 15 punti |
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9. (1 punto) exercise 14a $a = 4, b = 3, c = 7$
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- (a) answer 5 wrong
- (b) answer 3 wrong
- (c) answer 1 correct
- (d) answer 4 wrong
- (e) answer 2 wrong

10. (1 punto) $a = 12, b = 13, c = 3, k = 5$

Evaluate with two exact decimals

$$12 : 3 =$$

ALL THE PROBLEMS OF A FILE

11. (1 punto) exercise 11b

$\{a, c, z\}$

- (a) answer 3 wrong
- (b) answer 2 wrong
- (c) answer 1 correct

12. (1 punto) exercise 11a

$\{b, c, x\}$

- (a) answer 1 correct
- (b) answer 3 wrong
- (c) answer 2 wrong

SOME OTHER QUESTIONS

1. (2 punti) exercise 13c $a = 4, b = 4, c = 6$

- (a) answer 5 wrong
- (b) answer 2 wrong
- (c) answer 3 wrong
- (d) answer 1 correct
- (e) answer 4 wrong

2. (1 punto) exercise 12c $a = 3, b = 5, c = 3$

- (a) answer 1 correct
- (b) answer 5 wrong
- (c) answer 4 wrong
- (d) answer 2 wrong
- (e) answer 3 wrong

Part two

Some other instructions.

ESERCIZIO 1. Let $A = \{a, x, y\}$ and $B = \{a, y, z\}$.

- (a) (2 punti) List (without repetition) the elements of the set $A \cup B$
 $A \cup B =$

| |
|---------|
| |
| 4 punti |

- (b) (2 punti) List (without repetition) the elements of the set $A \cap B$
 $A \cap B =$

An example of matching question.

ESERCIZIO 2. $a = 12, b = 13, c = 2$

___ 12×13

___ 3^2

___ $36 : 12$

___ 12×13

___ 12×13

(A) 9

(B) 3

(C) 156

(D) 156

(E) 156

| |
|----------------|
| |
| <i>3 punti</i> |

An example of “tabella” question.

ESERCIZIO 3. Complete the following table of derivatives:

| Function | |
|-----------------|--|
| $f(x) = x^2$ | |
| $f(x) = \sin x$ | |
| $f(x) = \cos x$ | |

| |
|---------|
| |
| 5 punti |