

Name: KEY Quiz Score: _____/20**Quiz 3: Version A***No credit for answers without sufficient justification. Use standard mathematical notation correctly.*

1. (7 pts) Write out the first ten terms of the Fibonacci Sequence (
- $F_1, F_2, F_3, \dots, F_{10}$
-).

 $1, 1, 2, 3, 5, 8, 13, 21, 34, 55, \dots$

2. (10 pts) Compute the value of each of the following.

(a) $F_1 + F_3 + F_5 + F_7 = 1 + 2 + 5 + 13 = 21$

(b) $10F_4 + 2F_6 = 10(3) + 2(8)$
 $= 30 + 16$
 $= 46$

(c) $F_2 \times F_5 = (1)(5) = 5$

(d) $F_{2 \times 5} = F_{10} = 55$

(e) $F_{F_6} = F_8 = 21$

3. (3 pts) Given that
- $F_{32} = 2,178,309$
- and
- $F_{33} = 3,524,578$
- , find
- F_{34}
- .

$$F_{34} = F_{32} + F_{33}$$
$$= 5,702,887$$

$$\begin{array}{r} 2\ 178\ 309 \\ 3\ 524\ 578 \\ \hline 5\ 702\ 887 \end{array}$$

Name: KEY Quiz Score: _____/20**Quiz 3: Version B***No credit for answers without sufficient justification. Use standard mathematical notation correctly.*

1. (7 pts) Write out the first ten terms of the Fibonacci Sequence (
- $F_1, F_2, F_3, \dots, F_{10}$
-).

1, 1, 2, 3, 5, 8, 13, 21, 34, 55, ...

2. (10 pts) Compute the value of each of the following.

(a) $F_2 + F_4 + F_6 + F_8 = 1 + 3 + 8 + 21 = 33$

(b) $15F_3 + 3F_6 = 15(2) + 3(8)$
 $= 30 + 24$
 $= 54$

(c) $F_2 \times F_4 = (1)(3) = 3$

(d) $F_{2 \times 4} = F_8 = 21$

(e) $F_{F_4} = F_3 = 2$

3. (3 pts) Given that
- $F_{32} = 2,178,309$
- and
- $F_{33} = 3,524,578$
- , find
- F_{34}
- .

$$F_{34} = F_{32} + F_{33}$$
$$= 5,702,887$$

$$\begin{array}{r} 2\ 178\ 309 \\ 3\ 524\ 578 \\ \hline 5\ 702\ 887 \end{array}$$

Name: KEY Quiz Score: _____ /20**Quiz 3: Version C***No credit for answers without sufficient justification. Use standard mathematical notation correctly.*

1. (7 pts) Write out the first ten terms of the Fibonacci Sequence (
- $F_1, F_2, F_3, \dots, F_{10}$
-).

 $1, 1, 2, 3, 5, 8, 13, 21, 34, 55, \dots$

2. (10 pts) Compute the value of each of the following.

(a) $F_2 + F_3 + F_4 + F_5 = 1 + 2 + 3 + 5 = 11$

(b) $4F_3 + 10F_7 = 4(2) + 10(13)$
 $= 8 + 130$
 $= 138$

(c) $F_2 \times F_3 = (1)(2) = 2$

(d) $F_{2 \times 3} = F_6 = 8$

(e) $F_{F_6} = F_8 = 21$

3. (3 pts) Given that
- $F_{32} = 2,178,309$
- and
- $F_{33} = 3,524,578$
- , find
- F_{34}
- .

$$F_{34} = F_{32} + F_{33}$$
$$= 5,702,887$$

$$\begin{array}{r} 2\,178\,309 \\ 3\,524\,578 \\ \hline 5\,702\,887 \end{array}$$