# Untitled Construction (5 February 2025)

| No. | Name | Description | Value |
|---|---|---|---|
| 1 | Point A | | A = (-14, -7) |
| 2 | Point B | | B = (14, 7) |
| 3 | Boolean Value a | | a = false |
| 4 | Boolean Value b | | b = false |
| 5 | Boolean Value c | | c = false |
| 6 | Boolean Value d | | d = false |
| 7 | Number li | RandomElement(Sequence(0, 10, 1)) | li = 10 |
| 8 | Number ls | RandomElement(Sequence(li + 1, li + 5, 1)) | ls = 15 |
| 9 | Number na | RandomElement(Sequence(3, 12, 1)) | na = 6 |
| 10 | Number nb | RandomElement(Sequence(0, 10, 1)) | nb = 8 |
| 11 | Text side | RandomElement({"left","right"}) | "right" |
| 12 | Function f | Simplify(na x + nb) | f(x) = 6x + 8 |
| 13 | Text $text_0$ | "\text{Compute the " + (FormulaText(side)) + " Riemann sum}\\ \text{for }f(x)=" + (FormulaText(f)) + ",\text{on the} \\ \text{interval }[" + (FormulaText(li)) + "," + (FormulaText(ls)) + "]." | "\text{Compute the right Riemann sum}\\ \text{for }f(x)=6 \; x + 8,\text{on the} \\ \text{interval }[10,15]." |
| 14 | Number op2 | RandomElement({-2, -1, 1, 2}) | op2 = -1 |
| 15 | Number op3 | RandomElement({-2, -1, 1, 2} \ {op2}) | op3 = 1 |
| 16 | Number op4 | RandomElement({-2, -1, 1, 2} \ {op2, op3}) | op4 = 2 |
| 17 | CAS Cell $1 | na ls² / 2 - na li² / 2 + nb ls - nb li - Simplify((na (ls - li)² + op3) / 2 / n) | 415 - 151 / (2n) |
| 18 | CAS Cell $2 | na ls² / 2 - na li² / 2 + nb ls - nb li - Simplify((na (ls - li)²) / 2 / n) | 415 - 75 / n |
| 19 | CAS Cell $3 | na ls² / 2 - na li² / 2 + nb ls - nb li + Simplify((na (ls - li)²) / 2 / n) | 415 + 75 / n |
| 20 | CAS Cell $4 | na ls² / 2 - na li² / 2 + nb ls - nb li - Simplify((na (ls - li)² + op2) / 2 / n) | 415 - 149 / (2n) |
| 21 | CAS Cell $5 | na ls² / 2 - na li² / 2 + nb ls - nb li + Simplify((na (ls - li)² + op2) / 2 / n) | 415 + 149 / (2n) |
| 22 | CAS Cell $6 | na ls² / 2 - na li² / 2 + nb ls - nb li + Simplify((na (ls - li)² + op3) / 2 / n) | 415 + 151 / (2n) |
| 23 | CAS Cell $7 | na ls² / 2 - na li² / 2 + nb ls - nb li - Simplify((na (ls - li)² + op4) / 2 / n) | 415 - 76 / n |
| 24 | CAS Cell $8 | na ls² / 2 - na li² / 2 + nb ls - nb li + Simplify((na (ls - li)² + op4) / 2 / n) | 415 + 76 / n |
| 25 | Text option1 | If(side ≟ "left", FormulaText($2), FormulaText($3)) | "415 + \frac{75}{n}" |
| 26 | Text option2 | If(side ≟ "left", FormulaText($4), FormulaText($5)) | "415 + \frac{149}{2 \; n}" |
| 27 | Text option3 | If(side ≟ "left", FormulaText($1), FormulaText($6)) | "415 + \frac{151}{2 \; n}" |
| 28 | Text option4 | If(side ≟ "left", FormulaText($7), FormulaText($8)) | "415 + \frac{76}{n}" |
| 29 | List l1 | {option1, option2, option3, option4} | l1 = {"415 + \frac{75}{n}", "415 + \frac{149}{2 \; n}", "415 + \frac{151}{2 \; n}", "415 + \frac{76}{n}"} |
| 30 | List l2 | Sample(l1, 4, false) | l2 = {"415 + \frac{151}{2 \; n}", "415 + \frac{75}{n}", "415 + \frac{76}{n}", "415 + \frac{149}{2 \; n}"} |
| 31 | List l3 | {a, b, c, d} | l3 = {false, false, false, false} |
| 32 | Text $text_1$ | "" + (FormulaText(Text(Element(l2, 1), (-1.3, 4), true, true))) + "" | "415 + \frac{151}{2 \; n}" |
| 33 | Text text1 | "" + (FormulaText(Text(Element(l2, 2), (-1.3, 4), true, true))) + "" | "415 + \frac{75}{n}" |
| 34 | Text text2 | "" + (FormulaText(Text(Element(l2, 3), (-1.3, 3), true, true))) + "" | "415 + \frac{76}{n}" |
| 35 | Text text3 | "" + (FormulaText(Text(Element(l2, 4), (-1.3, 3), true, true))) + "" | "415 + \frac{149}{2 \; n}" |
| 36 | Number $right_{answer}$ | IndexOf(option1,l2) | $right_{answer}$ = 2 |
| 37 | Number grade | If(Element(l3,$right_{answer}$) ≟ true, 100, 0) + If(Sum(l3) ≟ 0, 0, If(Element(l3, $right_{answer}$) ≟ true, 0, 50)) | grade = 0 |
| 38 | Number counter | | counter = 0 |
| 39 | Number score | | score = 0 |
| 40 | Text $feddback_{in}$ | "\text{Score: }" + (FormulaText(score)) + "" | "\text{Score: }0" |
| 41 | Text $feedback_{co}$ | "\text{Score: }" + (FormulaText(score)) + "" | "\text{Score: }0" |
| 42 | Quadrilateral c1 | Polygon (-15, -5), (-10, -5), (-10, 4), (-15, 4) | c1 = 45 |
| 42 | Segment g | Segment (-15, -5), (-10, -5) | g = 5 |
| 42 | Segment h | Segment (-10, -5), (-10, 4) | h = 9 |
| 42 | Segment i | Segment (-10, 4), (-15, 4) | i = 5 |
| 42 | Segment j | Segment (-15, 4), (-15, -5) | j = 9 |

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| No. | Name | Description | Value |
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| 43 | Quadrilateral c2 | Polygon (5, -6), (15, -6), (15, -4), (5, -4) | c2 = 20 |
| 43 | Segment k | Segment (5, -6), (15, -6) | k = 10 |
| 43 | Segment l | Segment (15, -6), (15, -4) | l = 2 |
| 43 | Segment m | Segment (15, -4), (5, -4) | m = 10 |
| 43 | Segment p | Segment (5, -4), (5, -6) | p = 2 |
| 44 | Button button1 | | button1 |