

## Quiz 7

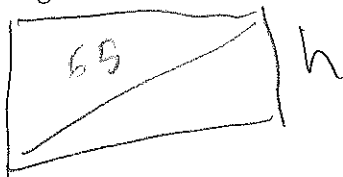
Name:

Colin Gallivan

Section Time:

5862735

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$\text{aspect ratio} = w:h$$

$$65^2 = h^2 + w^2$$

$$\sqrt{4225 - h^2} = w$$

$$w = \sqrt{4225 - h^2}$$

Aspect Ratio =

$$\frac{\sqrt{4225 - h^2}}{h}$$

or

$$\sqrt{4225 - h^2} : h$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\begin{array}{lcl} 0: & 0^2 - 1 & = 0 - 1 = -1 \\ 1: & 1^2 - 1 & = 1 - 1 = 0 \\ 2: & 2^2 - 1 & = 4 - 1 = 3 \\ 3: & 3^2 - 1 & = 9 - 1 = 8 \\ 4: & 4^2 - 1 & = 16 - 1 = 15 \end{array}$$

$$\begin{array}{r} -1 \\ 0 \\ 3 \\ 8 \\ 15 \end{array}$$

10

$$\sum_{n=0}^4 f(n) =$$

25

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$x \rightarrow$$

$$\begin{aligned} & (2)^2 - (2) + 2 \\ &= 4 - 2 + 2 \\ &= 4 \end{aligned}$$

$$(2+h)(2+h)^2 - (2+h) + 2$$

$$4 + 2h + 2h + h^2 - 2 - h + 2$$

$$4 + 4h + h^2 - h$$

$$4 + 3h + h^2$$

goes from  $4 \rightarrow 4 + 3h + h^2$   
so it increases by  $3h + h^2$

$$3h + h^2$$

## Quiz 7

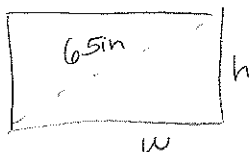
Name:

Vivian de Waart

Section Time:

5177530

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$65^2 = w^2 + h^2$$

$$\sqrt{w^2} = \sqrt{4225 - h^2}$$

$$w = \sqrt{4225 - h^2}$$

$$\begin{array}{r} 265 \\ \times 67 \\ \hline 1855 \\ + 3900 \\ \hline 4225 \end{array}$$

Aspect Ratio =

$$\frac{\sqrt{4225 - h^2}}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\sum_{n=0}^4 n^2 - 1$$

$$(0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$-1 + 0 + 3 + 8 + 15$$

$$10 + 15 = 25$$

$$\sum_{n=0}^4 f(n) = 25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$(2+h)^2 - 2+h + 2$$

$$(2+h)(2+h)$$

$$4 + 4h + h^2 - (2+h) + 2$$

$$4 + 3h + h^2$$

$$h^2 + 3h + 4$$

## Quiz 7

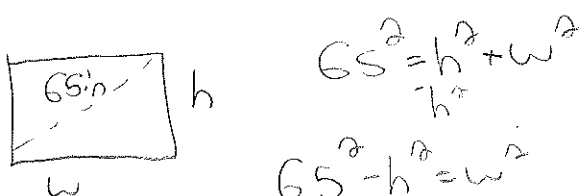
Name:

Myles Kelly

Section Time:

C 5000120

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$\sqrt{4225 - h^2} : h$$

Aspect Ratio =

$$\frac{\sqrt{4225 - h^2}}{h}$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\begin{array}{r} -1 \\ 15 \end{array} \quad \begin{array}{r} 15-1=14 \\ -1 \\ 3 \\ 8 \\ 15 \end{array}$$

$$4 = 0^2 - 1$$

$$4 = -1$$

$$\sum_{n=0}^4 f(n)$$

$$\sum_{n=0}^4 f(n) =$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$x$  is increased to  $2+h$

$$x = (2+h)^2 - 2+h+2$$

$$(2+h)^2 + h$$

$$4+h^2+h$$

$$h^2+h+4$$

$$h^2+h+4$$

## Quiz 7

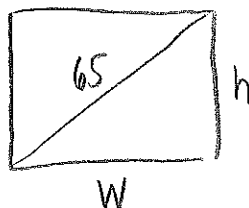
Name:

Samantha Stevens

Section Time:

5113980

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$h^2 + W^2 = 65^2$$

$$W = \sqrt{4225 - h^2}$$

$$\begin{array}{r} 365 \\ \times 65 \\ \hline 1325 \\ 3900 \\ \hline 4225 \end{array}$$

Aspect Ratio =

$$\frac{\sqrt{4225 - h^2}}{h}$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$(0)^2 - 1 = -1$$

$$(1)^2 - 1 = 0$$

$$(2)^2 - 1 = 4 - 1 = 3$$

$$(3)^2 - 1 = 9 - 1 = 8$$

$$(4)^2 - 1 = 16 - 1 = 15$$

$$-1 + 0 + 3 + 8 + 15$$

$$-1 + 3 = 2 + 0 + 8 = 10 + 15 = 25$$

$$\sum_{n=0}^4 f(n) = 25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$(2+h)^2 - (2+h) + 2$$

$$(2+h)^2 = (2+h)(2+h)$$

$$4 + 2h + 2h + h^2$$

$$4 - \cancel{x} + \cancel{x} = 4$$

$$h^2 + 4h + 4 - 2 - h + 2$$

$$h^2 + 3h + 4$$

$$(2)^2 - (2) + 2 = 4 - \cancel{x} + \cancel{x}$$

$$h^2 + 3h + 4 - (4) = h^2 + 3h$$

$$h(3+h)$$

$$h(3+h)$$



## Quiz 7

Name:

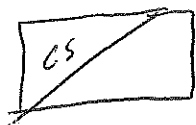
Maximilian Blum

Section Time:

4984 886

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.

$$\begin{array}{r} 365 \\ \times 65 \\ \hline 325 \\ 3400 \\ \hline 4225 \end{array}$$



$$\frac{w}{h}$$

$$65^2 = w^2 + h^2$$

$$4225 = w^2 + h^2$$

$$4225 = w^2 + h^2$$

$$h = \sqrt{4225 - w^2}$$

Aspect Ratio =

$$\frac{\sqrt{4225 - w^2}}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$0^2 - 1 \quad 1^2 - 1 \quad 2^2 - 1 \quad 3^2 - 1 \quad 4^2 - 1$$

$$-1 \quad 0 \quad 3 \quad 8 \quad 15$$

$$-1 \quad 2 \quad 10 + 15 = 25$$

$$\sum_{n=0}^4 f(n) = 25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$2 \rightarrow 2+h$$

$$2^2 - 2 + 2 = 2$$

$$\cancel{2h^2} - \cancel{2h}$$

$$(2+h)^2 - 2+h+2$$

$$(2+h)(2+h)$$

$$4 + 2h + 2h + h^2$$

$$4 + 4h + h^2 - 2 + h + 2$$

$$\underline{h^2 + 5h + 4} - 4 = h^2 + 5h$$

increased by

$$h^2 + 5h$$

## Quiz 7

perm: 6144893

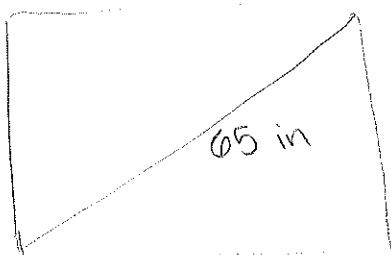
Name:

Mariah Ford

Section Time:

6 pm Tuesday

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$\text{aspect ratio} = w:h$$

$$65^2 = w^2 + h^2$$

$$\sqrt{65^2 - h^2} = \sqrt{w^2}$$

$$w = \sqrt{65^2 - h^2}$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\begin{array}{cccccc} (0^2 - 1) & + & (1^2 - 1) & + & (2^2 - 1) & + & (3^2 - 1) & + & (4^2 - 1) \\ -1 & & 0 & & 3 & & 8 & & 15 \end{array}$$

25

$$\sum_{n=0}^4 f(n) =$$

25

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$2^2 - 2 + 2 = 4$$

$$(2+h)^2 - (2+h) + 2$$

$$(2+h)(2+h)$$

$$4 + 4h + h^2 - \cancel{2} - h + \cancel{2}$$

$$\cancel{4} + 3h + h^2 - \cancel{4}$$

$$3h + h^2$$

## Quiz 7

Name: Rebecca Kabei

Section Time: 5084769

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$w^2 + h^2 = 65^2$$

$$w^2 + h^2 = 4225$$

$$w^2 = 4225 - h^2$$

$$w = \sqrt{4225 - h^2} : h$$

$$\begin{array}{r} 65 \\ \times 65 \\ \hline 325 \\ + 3900 \\ \hline 4225 \end{array}$$

$$\begin{array}{r} 65 \\ \times 65 \\ \hline 325 \\ + 3900 \\ \hline 4225 \end{array}$$

Aspect Ratio =

$$\sqrt{4225 - h^2} : h$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .
- $$\begin{array}{ccccccc} 0-1 & 1-1 & 2-1 & 3-1 & 4-1 & & \\ (-1) & (0) & (3) & (8) & (15) & & \end{array}$$
- $$2 + 8 + 15 = 10 + 15 = 25$$

$$\sum_{n=0}^4 f(n) =$$

25

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$x = 2: 2^2 - 2 + 2 = 4 - 2 + 2 \Rightarrow \textcircled{4}$$

$$x = 2+h: (2+h)^2 - (2+h) + 2$$

$$(h^2 + 4h + 4) - (2+h) + 2$$

$$h^2 + 4h + 4 - 2 - h + 2$$

$$(h^2 + 3h + 4) - (4)$$

$$\Rightarrow h^2 + 3h$$

	2	h
2	4	2h
h	2h	$h^2$

$$h^2 + 3h$$

## Quiz 7

479466-5

Name:

Kellen Beckett

Section Time:

6:00 PM

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.

$$\frac{65}{h} = \frac{w}{h}$$

$$w^2 + h^2 = 65^2$$

$$w = \sqrt{65^2 - h^2}$$

$$r = \frac{\sqrt{4225 - h^2}}{h}$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\sum_{n=0}^4 n^2 - 1 = (0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$= -1 + 0 + 3 + 8 + 15 = 25$$

$$\begin{array}{r} 65 \\ 65 \\ \hline 325 \\ 3406 \\ \hline 4225 \end{array}$$

$$\sum_{n=0}^4 f(n) =$$

25

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$\frac{2^2 - 2 + 2}{4}$$

$$(2+h)(2+h) - (2+h) + 2$$
$$4 + 4h + h^2 - 2 - h + 2$$

$$4 + 3h + h^2$$

$$3h + h^2$$



## Quiz 7

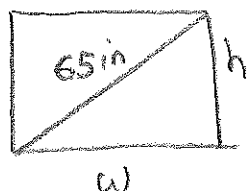
Name:

Jessica Amezcua

Section Time:

5741381

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$w = \sqrt{65^2 - h^2}$$

$$\begin{array}{r} 32 \\ 65 \\ \times 65 \\ \hline 325 \\ 3900 \\ \hline 4225 \end{array}$$

4225

$$w^2 + h^2 = 65^2$$

$$w = \sqrt{65^2 - h^2}$$

$$w = \sqrt{65^2 - h^2}$$

Aspect Ratio =

$$w = \sqrt{4225 - h^2} ; h$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\begin{array}{cccc} 1 & 2 & 3 & 4 \\ 0^2 - 1 & + 1^2 - 1 & + 2^2 - 1 & + 3^2 - 1 \end{array}$$

$$-1 + 0 + 3 + 8 + 15$$

$$\begin{array}{r} 10 + 15 \\ 25 \end{array}$$

$$\begin{array}{r} 4^2 - 1 \\ 16 - 1 \\ 15 \end{array}$$

$$\sum_{n=0}^4 f(n) = 25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$S(2) = 2^2 - 2 + 2$$

$$4 - 2 + 2 = 4$$

$$S(2+h) = (2+h)^2 - (2+h) + 2$$

$$4$$

$$(2+h)(2+h)$$

$$4 + 2h + 2h + h^2$$

$$\cancel{4} + 4h + h^2 \cancel{- 2 - h + 2}$$

$$2 + 4h + h^2 + h + 2$$

$$S(2+h) = 4 + 5h + h^2 - S(2)$$

$$5h + h^2$$

$$S(2+h) - S(2)$$

$$\cancel{4} + 5h + h^2 - \cancel{4}$$

$$5h + h^2$$

$$5h + h^2$$

## Quiz 7

PERM: 6358386

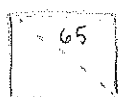
Name:

Sydney Bivins

Section Time:

Tues. 6-7pm

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$w^2 + h^2 = 65^2$$

$$w^2 + h^2 = 4225$$

$$w = \sqrt{4225 - h^2}$$

$$\begin{array}{r} 65 \\ \times 65 \\ \hline 325 \\ 43900 \\ \hline 4225 \end{array}$$

Aspect Ratio =

$$\frac{\sqrt{4225 - h^2}}{h}$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\sum_{n=0}^4 n^2 - 1$$

$$0. 0^2 - 1 = -1$$

$$1. 1^2 - 1 = 0$$

$$2. 2^2 - 1 = 3$$

$$3. 3^2 - 1 = 8$$

$$4. 4^2 - 1 = 15$$

25

$$\sum_{n=0}^4 f(n) = 25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$2: \quad 2^2 - 2 + 2 \\ 4 - 2 + 2 = 4$$

$$2+h: \quad (2+h)(2+h) - (2+h) + 2 \\ 4 + 2h + 2h + h^2 - 2 - h + 2 \\ h^2 + 3h + 4$$

$$\frac{(2+h)^2 - 2}{h^2 + 3h + 4} = \frac{h}{h^2 + 3h + 4}$$

$$\frac{h}{h^2 + 3h + 4}$$

## Quiz 7

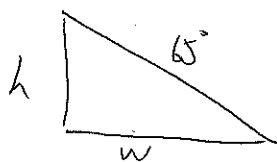
Name:

Sophia Pan 6463467

Section Time:

6463467

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$\frac{w}{h} = \frac{\sqrt{65^2 - h^2}}{h}$$

$$w^2 + h^2 = 65^2$$

$$w^2 = 65^2 - h^2$$

$$w = \sqrt{65^2 - h^2}$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\begin{aligned} & [(0)^2 - 1] + [(1)^2 - 1] + [(2)^2 - 1] + [(3)^2 - 1] + [(4)^2 - 1] \\ &= -1 + 0 + 3 + 8 + 15 \\ &= 25 \end{aligned}$$

$$2+8+15$$

$$\sum_{n=0}^4 f(n) = 25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$\begin{aligned}
 & (2+h)^2 - (2+h) + 2 - (2^2 - 2 + 2) \\
 &= 4 + 4h + h^2 - 2 - h - 4 \\
 &= 3h + h^2
 \end{aligned}$$

$$\begin{aligned}
 & (2+h)^2 - (2+h) + 2 - (2^2 - 2 + 2) \\
 &= 4 + 4h + h^2 - 2 - h - 4 \\
 &= 3h + h^2
 \end{aligned}$$

$$y = x^2$$

$$\begin{array}{rcl}
 1-2 & & 3-4 \\
 2^2-1^2=3 & & 16-9=7
 \end{array}$$

$$\begin{array}{rcl}
 3-5 & & \\
 5^2-3^2=16 & &
 \end{array}$$

$$3h + h^2$$

## Quiz 7

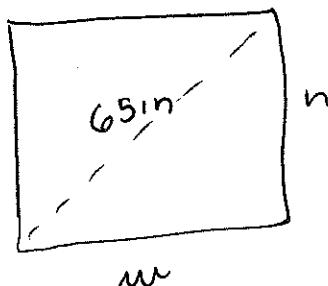
Name:

Natasha Gamloff

Section Time:

6773113

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.

 $w:h$ 

$$\begin{aligned}
 65^2 &= h^2 + w^2 \\
 -h^2 & \\
 \hline
 \sqrt{w^2} &= \sqrt{-h^2 + 65^2} \\
 w &= \sqrt{65^2 - h^2} \\
 w &= \sqrt{4225 - h^2}
 \end{aligned}$$

$$\sqrt{4225 - h^2} : h$$

Aspect Ratio =

$$\sqrt{4225 - h^2} : h$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$0^2 - 1 \quad 1^2 - 1 \quad 2^2 - 1 \quad 3^2 - 1 \quad 4^2 - 1$$

$$-1 + 0 + 3 + 8 + 15$$

$$\begin{array}{r} \diagup \quad \diagdown \\ -1 \end{array}$$

$$+ \begin{array}{r} \diagup \quad \diagdown \\ 11 \end{array} + 15$$

$$10 + 15$$

$$25$$

$$\sum_{n=0}^4 f(n) =$$

$$25$$

3). If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$2^2 - x + 2$$

$$2^2 - 2 + 2$$

$$4 - 2 + 2$$

$$4$$

$$(2+h)^2 - x + 2$$

$$(2+h)^2 - (2+h) + 2$$

$$h^2 + 4h + 4 - (2+h) + 2$$

$$h^2 + 4h + \cancel{4} - (2+h)$$

	2	h
2	4	2h
h	2h	h <sup>2</sup>

$$h^2 + 4h + 6 - (2+h) - 4$$

$$h^2 + 4h + 2 - (2+h)$$

$$h^2 + 4h + 2 - (2+h)$$



## Quiz 7

Name:

Toha Hossain

Section Time:

6 - 6:50

Perm: 8757406

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$65^2 = h^2 + w^2$$

$$4225 = h^2 + w^2$$

$$w = \sqrt{4225 - h^2}$$

$$\begin{array}{r} 3 \\ 465 \\ \times 65 \\ \hline 325 \\ 3900 \\ \hline 4225 \end{array}$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h} \Rightarrow$$

$$\Rightarrow \frac{\sqrt{4225 - h^2}}{h}$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$(0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$-1 + 0 + 3 + 8 + 15$$

$$\begin{array}{r} 3 \\ 18 \\ \hline 15 \\ 26 \\ \hline 1 \\ 25 \end{array}$$

$$\begin{array}{r} 15 \\ 8 \\ \hline 3 \\ 26 \\ \hline 1 \end{array}$$

$$\sum_{n=0}^4 f(n) = (0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1) \Rightarrow 25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$\begin{array}{l} 2^2 - 2 + 2 \\ \hline 4 - 2 + 2 \\ \checkmark \\ 2 + 2 = 4 \end{array}$$

$$\begin{array}{l} (2+h)(2+h) \\ \hline 4 + 2h + 2h + h^2 \end{array}$$

$$\begin{array}{l} (2+h)^2 - (2+h) + 2 \\ \hline 4 + 4h + h^2 - 2 - h + 2 \end{array}$$

$$4 + 3h + h^2$$

$$h(3+h)$$

$$h(3+h) \rightarrow 3+h$$

## Quiz 7

Name:

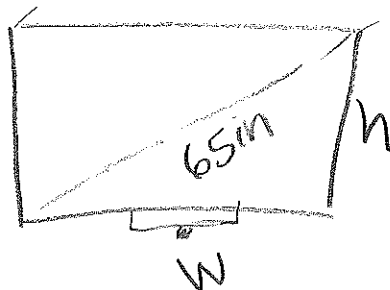
Odalys Ordaz

Section Time:

Perm:

6065536

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$\frac{w}{h}$$

$$c^2 = a^2 + b^2$$

$$65^2 = h^2 + w^2$$

$$4,225 = h^2 + w^2$$

$$\begin{array}{r} 32 \\ 65 \\ \times 65 \\ \hline 325 \\ 3900 \\ \hline 4225 \end{array}$$

Aspect Ratio =

$$\frac{\sqrt{4225 - h^2}}{h}$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\begin{array}{l} \textcircled{1} \\ 0^2 - 1 = -1 \\ \textcircled{2} \\ 1^2 - 1 = 0 \\ \textcircled{3} \\ 2^2 - 1 = 3 \\ \textcircled{4} \\ 3^2 - 1 = 8 \end{array}$$

$$\sum_{n=0}^4 f(n) = -1 + 0 + 3 + 8 = 10$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$\begin{aligned} 2^2 &= 2+2 \\ 4-2 &= 2 \\ \downarrow & \\ 2+2 &= 4 \end{aligned}$$

$$\begin{aligned} (2+h)^2 - (2+h) + 2 \\ (4+h^2) - (2+h) + 2 \end{aligned}$$

$$2+h^2-h+2$$

$$4+h^2-h$$

$$\begin{array}{r} 4+h^2-h \\ -4 \\ \hline h^2-h \end{array}$$

$$h^2-h$$

## Quiz 7

Name:

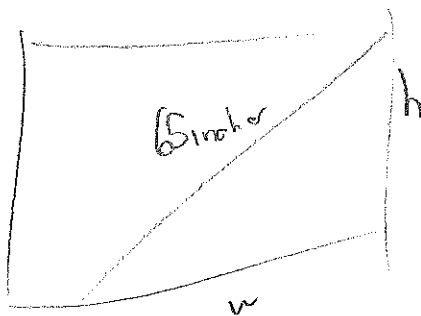
Erick Castillo

Section Time:

Perm #

5900857

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$a^2 + b^2 = c^2$$

$$h^2 + w^2 = 65^2$$

$$\begin{array}{r} 65 \\ \times 65 \\ \hline 325 \\ 1390 \\ \hline 4225 \end{array}$$

$$h^2 + w^2 = 4225 - w^2$$

$$\sqrt{h^2} = \sqrt{4225 - w^2}$$

$$h = \frac{\sqrt{4225 - w^2}}{h}$$

$$\frac{\sqrt{4225 - w^2}}{h}$$

Aspect Ratio =

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\sum_{n=0}^4 (n^2 - 1) = \sum_{n=0}^4 (n^2) - \sum_{n=0}^4 (1)$$

$$(0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$0 - 1$$

$$\sum_{n=0}^4 f(n) = 5n^2 - 24$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

penda,

$$2^2 - 2 + 2$$

$$4 - 2 + 2$$

$$4 - \underset{\vee}{4} = \boxed{0}$$

$$(2+h)^2 - 2+h - 2$$

$$4+h^2 - \cancel{2+h} - \cancel{2}$$

$$h^2 - h = \boxed{h}$$

$$\boxed{h}$$

## Quiz 7

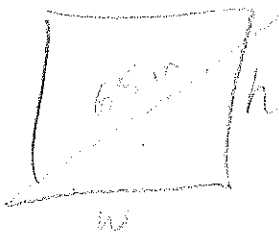
Name:

Alvaro Marquez

Section Time:

659 6506

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.

 $h:w$ 

$$65^2 = h^2 + w^2$$

$$w^2 = 65^2 - h^2$$

$$w = \sqrt{4225 - h^2}$$

$$w = \sqrt{4225 - h^2}$$

$$\begin{array}{r} 38 \\ 65 \\ 765 \\ 1325 \\ 3900 \\ \hline 4225 \end{array}$$

$$\begin{array}{r} 38 \\ 65 \\ 65 \\ \hline 1325 \\ 3900 \\ \hline 4225 \end{array}$$

Aspect Ratio =

$$h : \sqrt{4225 - h^2}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$f(0) = 0^2 - 1 = -1$$

$$f(1) = 1^2 - 1 = 0$$

$$f(2) = 2^2 - 1 = 3$$

$$f(3) = 3^2 - 1 = 8$$

$$f(4) = 4^2 - 1 = 15$$

$$\sum_{n=0}^4 f(n) = -1, 0, 3, 8, 15$$

3). If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$x$  increases  $2 \rightarrow 2+h$

$$\begin{array}{r} 2h \\ 2 \cdot 2 = 4 \\ h \cdot 2h = 2h^2 \end{array}$$

$$2^2 - 2 + 2$$

$$(2+h)^2 - 2 + h + 2$$

$$\begin{array}{r} 4 - 2 + 2 \\ 2 + 2 = 4 \end{array}$$

$$h^2 + 2h + 4 - 2 + h + 2$$

$$h^2 + 3h + 6 - 4$$

$$h^2 + 3h + 2$$

$$h^2 + 3h + 2$$



## Quiz 7

Name:

Sean Andampour

Section Time:

6120505

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.

$$w^2 + h^2 = 65^2$$

$$w = \frac{\sqrt{65^2 - h^2}}{h}$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h} \text{ in}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\begin{array}{l} 0^2 - 1 = -1 \\ 1^2 - 1 = 0 \\ 4 \leftarrow 2^2 - 1 = 3 \\ 9 \leftarrow 3^2 - 1 = 8 \\ 16 \leftarrow 4^2 - 1 = 15 \end{array} \quad \begin{array}{l} 2 \\ 10 \\ 25 \end{array}$$

$$\sum_{n=0}^4 f(n) =$$

25

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$2^2 - 2 + 2$$

$$4 - 2 + 2 = 4$$

$$(2+h)^2 - (2+h) + 2$$

$$(h^2 + 4h + 4) - (2+h) + 2$$

$$(h^2 + 3h + 2 + 2)$$

$$(h^2 + 3h + 4) - 4$$

$$h^2 + 3h$$

$$(2+h)(2+h)$$

$$4 + 2h + 2h + h^2$$

$$(h^2 + 4h + 4)$$

$$h^2 + 4h$$

$$h^2 + 3h$$

## Quiz 7

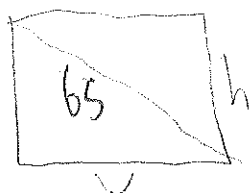
Name:

Nathan Starkovich

Section Time:

4/9/8/3

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



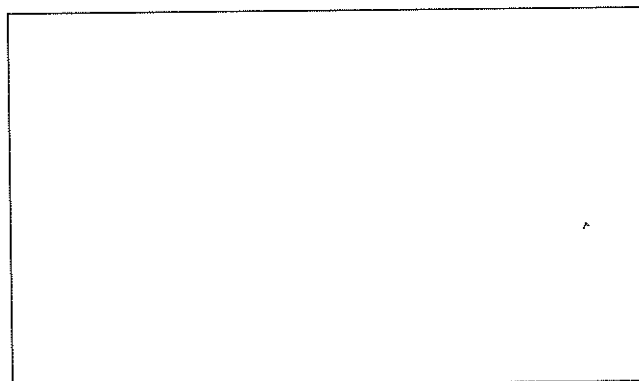
$$w^2 + h^2 = 65^2$$

$$w^2 + h^2 = 4225$$

$$w^2 = 4225 - h^2$$

$$4225 - h^2 + h^2 = 4225$$

Aspect Ratio =



2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$-1 + 0 + 3 + 8 + 15 = 25$$

$$\sum_{n=0}^4 f(n) =$$

25

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$4$$

$$(2+h)^2 - 2+h+2$$

$$4 + 4h + h^2 - 2 + h + 2$$

$$4 + 5h + h^2$$

$$4 + 5h + h^2 - 4 = 5h + h^2$$

$$5h + h^2$$

## Quiz 7

Name:

Taylor Iden

Section Time:

5709415

5:00pm Tue

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.

$$\begin{array}{r} 65 \\ \times 65 \\ \hline 325 \\ 3900 \\ \hline 4225 \end{array}$$

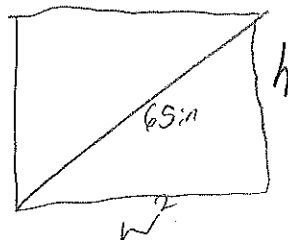
$$w^2 + h^2 = 65^2$$

$$w^2 + h^2 = 4225$$

$$\sqrt{w^2} = \sqrt{4225 - h^2}$$

Aspect Ratio =

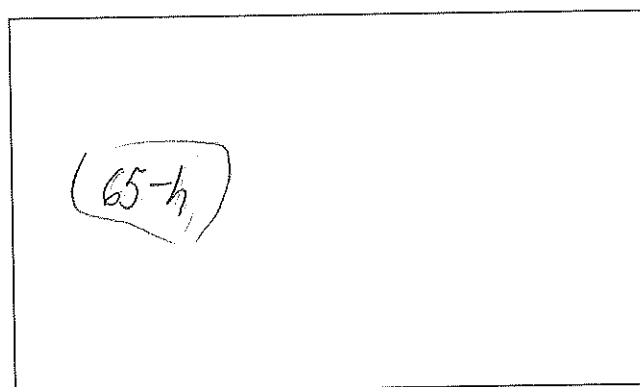
$$w = 65 - h$$



$$W = \frac{A}{h} = \frac{65h}{h} = 65$$

$$(65-h)^2 + h^2 = 65^2$$

$$4225 - 65h + h^2 = 4225$$



- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\begin{array}{cccccc} 0^2-1 & 1^2-1 & 2^2-1 & 3^2-1 & 4^2-1 \\ -1 & 0 & 3 & 8 & 15 \end{array}$$

$$\sum_{n=0}^4 f(n) =$$

$$25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$2 \rightarrow 2+h$$

$$2^2 - 2 + 2$$

$$4 \quad \text{to}$$

$$(2+h)^2 - (2+h) + 2$$

$$(2+h)(2+h) \\ 4 + 2h + 2h + h^2$$

$$h^2 + 4h + 4 = \cancel{2}h + 2$$

$$h^2 + 4h + 4 - h$$

$$h^2 + 3h + 4$$

$$h^2 + 3h + 4$$

## Quiz 7

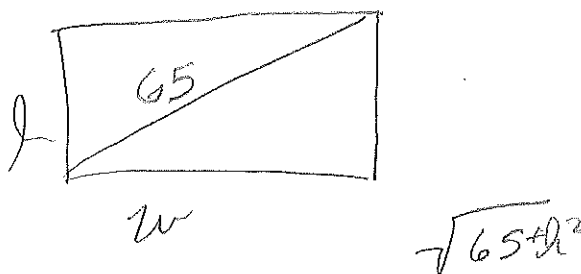
Name:

Elika Zahedi

Section Time:

3947280

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



Aspect Ratio =

$$\sqrt{65^2 - h^2} : h$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$0^2 - 1 + 1^2 - 1 + 2^2 - 1 + 3^2 - 1 + 4^2 - 1$$

$$-1 + 0 + 3 + 8 + 15$$

$$= 25$$

$$\sum_{n=0}^4 f(n) = 25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$2^2 - 2 + 2 \quad 2+h^2 - 2+h + 2$$

$$4 - 2 + 2$$

$$4 - 4$$

0

$$(2+h)(2+h) - 2+h + 2$$

$$4 + 2h + 4 + h^2 - 2 + h + 2$$

$$6 + 2h + 4 + h^2 - 2 + h$$

$$6 + 3h + 2 + h^2$$

$$8 + h^2 + 3h$$

$$8 + h^2 + 3h$$



## Quiz 7

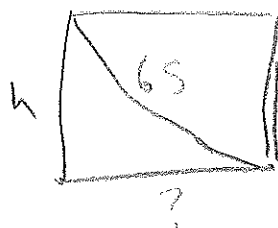
Name:

Aidan Afrasibi

Section Time:

5229869

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.

 $w : h$ 

$$w^2 + h^2 = 65^2$$

$$\sqrt{w^2} = \sqrt{65^2 - h^2}$$

$$w = \sqrt{65^2 - h^2}$$

Aspect Ratio =

$$\sqrt{65^2 - h^2} : h$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\sum_{n=0}^4 n^2 - 1$$

$$(0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$-1 + 0 + 3 + 8 + 15$$

$$\sum_{n=0}^4 f(n) =$$

25

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$x = 2 \longrightarrow x = 2 + h$$

$$h = x^2 - x + 2 \longrightarrow x^2 - x + 2 + h$$

$$2 + x^2 - x + 2 = 2 + h$$

$$x^2 - x = -2 + h$$

$$\frac{x(x-1)}{x} = \frac{-2+h}{x}$$

1h

## Quiz 7

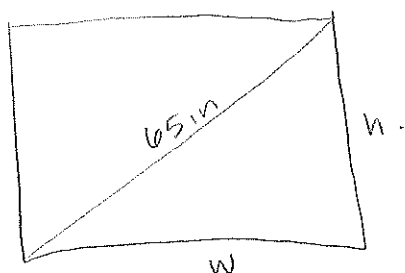
Name:

Zoe Albarnoz

Section Time:

6497796

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$h^2 + w^2 = 65^2$$

$$w^2 = 65^2 - h^2$$

$$w = \sqrt{65^2 - h^2}$$

$$\text{ratio} = \frac{w}{h} = \frac{\sqrt{4225 - h^2}}{h}$$

$$\begin{array}{r} 2 \\ 65 \\ \times 65 \\ \hline 1325 \\ 3900 \\ \hline 4225 \end{array}$$

Aspect Ratio =

$$\frac{\sqrt{4225 - h^2}}{h}$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$(0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$-1 + 0 + 3 + 8 + 15$$

$$2 \quad 10 \quad \checkmark \quad 25$$

$$\sum_{n=0}^4 f(n) = 25$$

3). If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 = x + 2$  increase? Your final answer should be in terms of  $h$ .

$$x = 2 : (2)^2 - (2) + 2 \rightarrow 4 - 2 + 2 = 4$$

$$\begin{aligned} x = 2+h : (2+h)^2 - (2+h) + 2 \\ \rightarrow 4 + 4h + h^2 - 2 - h + 2 \\ \rightarrow h^2 + 3h + 4 \end{aligned}$$

$$\frac{(h^2 + 3h + 4) - 4}{(2+h) - 2} \rightarrow \frac{h^2 + 3h}{h}$$

$$h^2 + 3h$$

## Quiz 7

Name:

Zoey Jarmine Moody

Perm #:

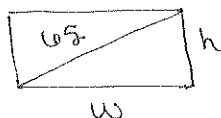
Section Time:

426413-4

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.

$$AR: w/h$$

find  $w$  in terms of  $h$



$$a^2 + b^2 = c^2$$

$$w^2 + h^2 = 65^2$$

$$-h^2 \quad -h^2$$

$$\sqrt{w^2} = \sqrt{65^2 - h^2}$$

$$w = 65 - h$$

Aspect Ratio =

$$\frac{65 - h}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\sum_{n=0}^4 n^2 - 1 = (0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$-1 + 0 + 3 + 8 + 15$$

$$2 + 8 + 15 = 25$$

$$\sum_{n=0}^4 f(n) = 25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$x^2 - x + 2 \quad \rightarrow \quad (2+h)^2 - (2+h) + 2$$

$$2^2 - 2 + 2$$

$$4$$

$$(2+h)(2+h)$$

$$(4 + 2h + 2h + h^2) - (2+h) + 2$$

$$(4 + 4h + h^2) - (2+h) + 2$$

$$4 + 4h + h^2 - 2 - h + 2$$

$$(4 + 4h + h^2) - (2)$$

$$4 + 4h + h^2 - (2+h)$$

$$2 + 3h + h^2 + 2$$

$$4 + 3h + h^2$$

$$3h + h^2$$

## Quiz 7

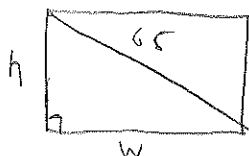
Name:

Ian Huang

Section Time:

3926409

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$65^2 = h^2 + w^2$$

$$65^2 - h^2 = w^2$$

$$w = \sqrt{65^2 - h^2}$$

$$\text{Aspect ratio} = \frac{w}{h}$$

$$\text{Aspect ratio} = \frac{\sqrt{65^2 - h^2}}{h}$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\sum_{n=0}^4 n^2 - 1 = (0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$= (0 - 1) + (1 - 1) + (4 - 1) + (9 - 1) + (16 - 1)$$

$$= -1 + 0 + 3 + 8 + 15$$

$$= -1 + 3 + 8 + 15$$

$$= 2 + 8 + 15$$

$$10 + 15 = 25$$

$$= 25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$\text{Change} = \frac{f(2+h) - f(2)}{(2+h) - 2} = \frac{(2+h)^2 - (2+h) + 2 - (2)^2 - (2) + 2}{2+h - 2}$$

$$\frac{4 + 4h + h^2 - (2+h) + 2 - 4 - 2 + 2}{h}$$

$$\frac{4 + 4h + h^2 - 2 - h + 2 - 4 - 2 + 2}{h}$$

$$\frac{3h + h^2}{h} = \frac{h(3+h)}{h} = \underline{3+h}$$

$3+h$



## Quiz 7

Name:

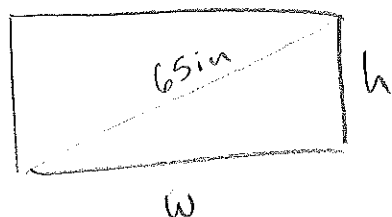
Mason Montgomery

Section Time:

392956

392956

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$h^2 + w^2 = 65^2$$

$$h^2 - 65^2 = w^2$$

$$\sqrt{h^2 - 65^2} = w$$

$$\text{aspect ratio} = \frac{w}{h}$$

Aspect Ratio =

$$\frac{\sqrt{h^2 - 65^2}}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$(0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$-1 + 0 + 3 + 8 + 15$$

$$2 + 8 + 15$$

$$25$$

$$\sum_{n=0}^4 f(n) =$$

$$25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$(2)^2 - (2) + 2 = 4$$

$$4 - 0 = 4$$

$$(2+h)^2 - (2+h) + 2$$

$$(2+h)(2+h) - (2+h) + 2$$

$$4 + 4h + h^2 - 2 - h + 2$$

$$(h^2 + 3h + 4) - 4$$

$$h^2 + 3h$$

$$(h^2 + 3h + 4) - 4$$

$$h^2 + 3h$$

## Quiz 7

Name:

CONNELL TRAINOR

Section Time:

6872899

6872899

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.

$$AR = w/h$$

$$65^2 = w^2 + h^2$$

$$w^2 = 65^2 - h^2$$

$$w = \sqrt{65^2 - h^2}$$

$$AR = \frac{\sqrt{65^2 - h^2}}{h}$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$(0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$-1 + 0 + (4-1) + (9-1) + (16-1)$$

$$-1 + 3 + 8 + 15$$

$$2 + 8 + 15$$

$$10 + 15$$

$$25$$

$$(-1) + (0) + (3) + (8) + (15)$$

$$14 + 8 + 3$$

$$11 + 14 = 25$$

$$\sum_{n=0}^4 f(n) =$$

25

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

①  $x = 2$

$$\begin{aligned} 2^2 - 2 + 2 &= 4 - 2 + 2 \\ &= 4 \end{aligned}$$

②  $x = 2+h$

$$(2+h)^2 - (2+h) + 2$$

$$(2+h)(2+h) - \cancel{2} - \cancel{h} + \cancel{2}$$

$$4 + 4h + h^2 - h$$

$$h^2 + 3h + 4$$

$$\textcircled{2} - \textcircled{1}$$

$$h^2 + 3h + 4 - 4$$

$$= h^2 + 3h$$

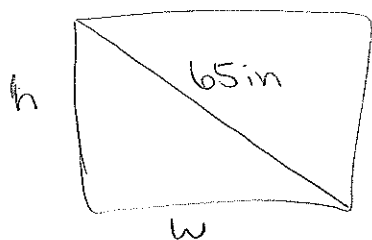
$$h^2 + 3h$$

## Quiz 7

Name: Victoria McNabb

Section Time: 5171038

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$\frac{w}{h} = \frac{\sqrt{65^2 - h^2}}{h}$$

$$65^2 = h^2 + w^2$$

$$\sqrt{65^2 - h^2} = \sqrt{w^2}$$

$$\sqrt{65^2 - h^2} = w$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\sum_{n=0}^4 n^2 - 1 : \begin{array}{cccccc} & 4^2 - 1 & 3^2 - 1 & 2^2 - 1 & 1^2 - 1 & 0^2 - 1 \\ & 16 - 1 & 9 - 1 & 4 - 1 & 1 - 1 & 0 - 1 \\ & 15 & 8 & 3 & 0 & -1 \\ & & & & & \cancel{-1} \\ & & & & & \cancel{0} \\ & & & & & \cancel{3} \\ & & & & & \cancel{8} \\ & & & & & \cancel{15} \\ & & & & & \cancel{2} \\ & & & & & \cancel{8} \\ & & & & & \cancel{15} \\ & & & & & \cancel{10} \\ & & & & & \cancel{15} \end{array}$$

$$\sum_{n=0}^4 f(n) = 25$$

$$\frac{(2+h)(2+h)}{1+2h+2h+h^2}$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$\begin{array}{l} x \\ 2 = 2^2 - 2 + 2 \\ 4 - 2 + 2 = 4 \end{array}$$

$$\begin{array}{l} 2+h = (2+h)^2 - (2+h) + 2 \\ h^2 + 4h + 4 - 2 - h + 2 \end{array}$$

$$\begin{array}{l} x \\ 2+h = h^2 + 3h + 4 \end{array}$$

$$(h^2 + 3h + 4) - 4 = h^2 + 3h$$

$$h^2 + 3h$$

## Quiz 7

Name:

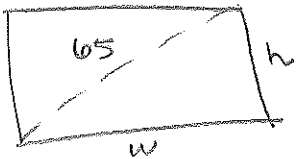
Harper Giordano

Section/Time:

P# -

5884150

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$65^2 = h^2 + w^2$$

$$w^2 = 65^2 - h^2$$

$$w = \sqrt{65^2 - h^2}$$

$$AR = \frac{w}{h}$$

$$AR = \frac{\sqrt{65^2 - h^2}}{h}$$

$$AR = \frac{w}{h}$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$(0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$-1 + 0 + 3 + 8 + 15$$

$$= 25$$

$$\sum_{n=0}^4 f(n) = 25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$(2+h)-2$$

$$\frac{((2+h)^2 - (2+h) + 2) - (2^2 - 2 + 2)}{(2+h) - 2}$$

$$\frac{[(h^2 + 4h + 4) - 2 - h + 2] - 4}{h}$$

$$\frac{h^2 + 3h}{h}$$

$$\boxed{h+3}$$

$$\boxed{h+3}$$



## Quiz 7

Name:

Riley Clark

Section Time:

5155312

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$65^2 = w^2 + h^2$$

$$w = \sqrt{65^2 - h^2}$$

w: h

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$(0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$-1 + 0 + 3 + 8 + 15$$

$$-1 + 10 + 15$$

25

$$\sum_{n=0}^4 f(n) =$$

25

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$\left( (h+2)^2 - (h+2) + 2 \right) - \left( 2^2 - 2 + 2 \right)$$

$$\left( h^2 + 4h + 4 - h - 2 + 2 \right) - (4)$$

$$h^2 + 3h + 4 - 4$$

$$h^2 + 3h$$

$$(2+h)(2+h) - (2+h) + 2$$

$$4 - 2 + 2$$

$$4$$

$$4 + 2h + h^2 + h - 2 - h + 2$$

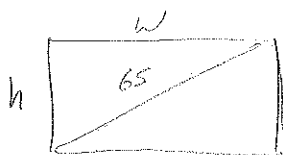
$$h^2 + 3h$$

$$h^2 + 3h$$

## Quiz 7

Name: Ela SchulzSection Time: 5295183

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$h^2 + w^2 = 65^2$$

$$h^2 + w^2 = 4225$$

$$w^2 = 4225 - h^2$$

$$w = \sqrt{4225 - h^2}$$

$$\begin{array}{r} 3 \\ 65 \\ \times 65 \\ \hline \end{array}$$

$$\begin{array}{r} 325 \\ 3900 \\ \hline 4225 \end{array}$$



$$h^2 + w^2 = 65^2$$

$$w^2 = 4225 - h^2$$

$$w = \sqrt{4225 - h^2}$$

$$\text{Aspect Ratio} =$$

$$\sqrt{4225 - h^2} : h$$

$$\begin{array}{r} \checkmark 3 \\ 65 \\ \times 65 \\ \hline 1325 \\ 3900 \\ \hline 4225 \end{array}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\sum_{n=0}^4 n^2 - 1$$

$$(0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$-1 + (1 - 1) + (4 - 1) + (9 - 1) + (16 - 1)$$

$$-1 + 0 + 3 + 8 + 15 = 25 \checkmark$$

$$(0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$-1 + 0 + 3 + 8 + 15$$

$$= 25$$

$$\sum_{n=0}^4 f(n) = 25$$

3) If  $x$  is increased from  $2$  to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$x^2 - x + 2$$

$$\uparrow$$
  

$$(x=2)$$

$$(2^2) - 2 + 2$$

$$4 - 2 + 2 = \underline{4}$$

$$2^2 - 2 + 2 = 4 \checkmark$$

$$(2+h)^2 - (2+h) + 2$$

$$4 + 4h + h^2 - 2 - h + 2$$

$$4 + 3h + h^2 \checkmark$$

$$4 + 3h + h^2 - 4 = 3h + h^2 \checkmark$$

$$x^2 - x + 2$$

$$\uparrow$$
  

$$(x=2+h)$$

$$4 + 4h + h^2 - (2+h) + 2$$

$$4 + 4h + h^2 - 2 - h + 2$$

$$4 + 3h + h^2$$

$$\underline{4 + 3h + h^2}$$

$$(2+h)(2+h)$$

$$4 + 2h + 2h + h^2$$

$$4 + 3h + h^2 - 4 = 3h + h^2$$

$$3h + h^2$$

## Quiz 7

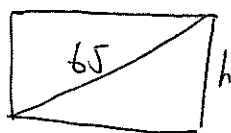
Name:

Yang Li ~~3996188~~

Section Time:

~~5:00pm~~ 3996188

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$65^2 - h^2 = w^2$$

$$65 - h = w$$

$$\frac{65-h}{h} = \frac{65}{h} - 1$$

Aspect Ratio =

$$\frac{65}{h} - 1$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$-1 + 0 + 3 + 8 + 15$$

$$\sum_{n=0}^4$$

$$f(n) =$$

$$25$$

3) If  $x$  is increased from 2 to  $2 + h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

4

$$\begin{aligned} & (2+h)^2 - (2+h) + 2 \\ &= 2^2 + 4h + h^2 - 2 - h + 2 \\ &= h^2 + 3h + 4 - 4 \end{aligned}$$

$$h^2 + 3h$$

## Quiz 7

Name:

Anyi Zhou

Section Time:

X306070

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.

$$\frac{w}{h} \quad \cancel{w+h=65} \quad \sqrt{w^2+h^2}=65$$

$$\sqrt{w^2+h^2}=65$$

$$w^2+h^2=65^2$$

$$w^2=65^2-h^2$$

$$w=\sqrt{65^2-h^2}$$

$$\frac{w}{h} = \frac{\sqrt{65^2-h^2}}{h}$$

$$= \frac{\sqrt{4225-h^2}}{h}$$

$$\begin{array}{r} 65 \\ \times 65 \\ \hline 325 \\ 390 \\ \hline 4225 \end{array}$$

Aspect Ratio =

$$\frac{\sqrt{4225-h^2}}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$f(0) + f(1) + f(2) + f(3) + f(4)$$

$$= (0^2-1) + (1^2-1) + (2^2-1) + (3^2-1) + (4^2-1)$$

$$= (0-1) + (1-1) + (4-1) + (9-1) + (16-1)$$

$$= -1 + 0 + 3 + 8 + 15$$

$$= 11 + 15$$

$$= 26$$

$$= 25$$

$$\sum_{n=0}^4 f(n) =$$

25

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$f(x) = x^2 - x + 2$$

$$\Delta f(x) = [(2+h)^2 - (2+h) + 2] - (2^2 - 2 + 2)$$

$$= 4 + h^2 + 4h - 2 - h + 2 - 4$$

$$= h^2 + 4h - h$$

$$= h^2 + 3h$$

$$h^2 + 3h$$



## Quiz 7

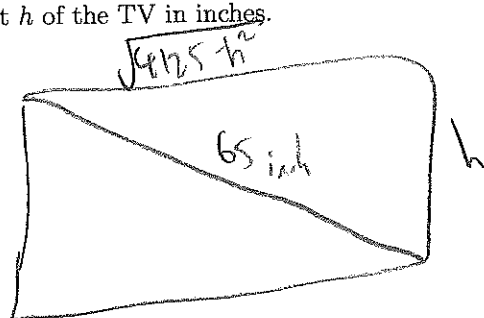
Name:

Christopher Boling

Section Time:

6085534

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$a^2 + h^2 = 65^2$$

$$a^2 = 65^2 - h^2$$

$$\sqrt{a^2} = \sqrt{4125 - h^2}$$

$$\begin{array}{r} 65 \\ - 65 \\ \hline 325 \\ 3400 \\ \hline 4125 \end{array}$$

Aspect Ratio =

$$\sqrt{4125 - h^2} : h$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$(0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$-1 + 0 + 3 + 8 + 15 = 25$$

$$\sum_{n=0}^4 f(n) =$$

25

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$f(2) = 2^2 - 2 + 2$$

$$4 - 2 + 2$$

$$f(2) = 4$$

$$(2+h)(2+h) =$$

$$f(2+h) = (2+h)^2 - (2+h) + 2$$

$$f(2+h) = 4 + 4h + h^2 - 2 - h + 2$$

$$= 4h + h^2 - h$$

$$= h^2 + 3h$$

$$h^2 + 3h - 4$$

$$h^2 + 3h - 4$$

## Quiz 7

Name:

Bryan Vinh

Section Time:

5133277

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.

 $h$  $w:h$  $\frac{w}{h}$ 

$$w^2 + h^2 = 65^2$$

$$\sqrt{w^2} = \sqrt{65^2 - h^2}$$

$$w = \frac{\sqrt{65^2 - h^2}}{h}$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$(0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$-1 + 0 + 3 + 8 + 15$$

$$\sum_{n=0}^4 f(n) = 25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$x=2$$

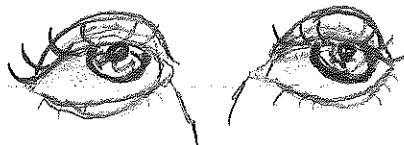
$$2+h$$

$$4+2h$$

$$2h$$

# MATH

## Quiz 7



Name:

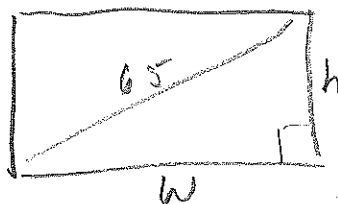
Kat Brydson

Section Time:

5100805

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.

$$\frac{W}{h}$$



$$W^2 + h^2 = 65^2$$

$$\sqrt{W^2} = \sqrt{65^2 - h^2}$$

$$W = 65 - h$$

Aspect Ratio =

$$\frac{65-h}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\sum_{n=0}^4 n^2 - 1$$

$$0^2 - 1 + 1^2 - 1 + 2^2 - 1 + 3^2 - 1 + 4^2 - 1$$

$$0 - 1 + 1 - 1 + 4 - 1 + 9 - 1 + 16 - 1$$

$$-1 + 4 - 1 + 9 - 1 + 16 - 1$$

$$\sum_{n=0}^4 f(n) =$$

$$25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$x = 2$$

$$x = 2+h$$

$$2^2 - 2 + 2 = 4$$

$$(2+h)^2 - (2+h) + 2$$

$$(2+h)(2+h)$$

$$4 + 2h + 2h + h^2 - \cancel{2} - \cancel{h} + \cancel{2}$$

$$4 + 4h + h^2 - h$$

$$h^2 + 3h$$

## Quiz 7

Name:

LUCIA CARCAMO

Section Time:

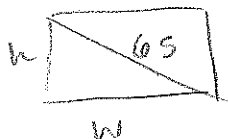
6185995

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.

$$h^2 + w^2 = 65^2$$

$$w^2 = 65^2 - h^2$$

$$w = \sqrt{65^2 - h^2}$$



$$\text{aspect ratio} = \frac{w}{h}$$

$$= \frac{\sqrt{65^2 - h^2}}{h}$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\sum_{n=0}^4 n^2 - 1$$

$$= (0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$= (-1) + (0) + (3) + (8) + (15)$$

$$= 10 + 15$$

$$= 25$$

$$\sum_{n=0}^4 f(n) =$$

25

$$(2+h)(2+h)$$

$$4 + 2h + 2h + h^2$$

$$4 + 4h + h^2$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$((2+h)^2 - (2+h) + 2) - (2^2 - 2 + 2)$$

$$((4 + 4h + h^2) - (2+h) + 2) - (4 - 2 + 2)$$

$$(4 + 4h + h^2 - 2 - h + 2) - 4$$

$$4 + 4h + h^2 - 2 - h - 4$$

$$= 3h + h^2$$



$$(2+h^2) - (2+h) + 2 - (4 - 2 + 2)$$

$$4 + 4h + h^2 - 2 - h + 2 - 4$$

$$4h + h^2 - h$$

$$3h + h^2$$

$$3h + h^2$$



## Quiz 7

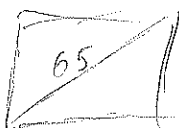
Name:

Justin Jose

Section Time:

5345780

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$65^2 = A^2 + b^2$$

$$\sqrt{65} =$$

$$6.4$$

$$65^2 = B \cdot h \left( \frac{1}{2} \right)$$

$$65^2 = b^2 \cdot H^2$$

$$\frac{\sqrt{65^2 - h^2}}{h}$$

$$\frac{\sqrt{65^2 - b^2}}{b}$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

0	1	2	3	4
-1	0	3	8	15

$$-1 + 11 + 15$$

$$-1 + 26$$

$$\sum_{n=0}^4 f(n) =$$

25

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$2 \rightarrow 2+h$$

	2	h
2	4	2h
h	2h	h <sup>2</sup>

$$(2)^2 - 2 + 2$$

$$4 - 2 + 2$$

✓

$$2 + 2$$

$$4$$

$$(2+h)^2 - (2+h) + 2$$

$$4 + 4h + h^2 - 2 - h + 2$$

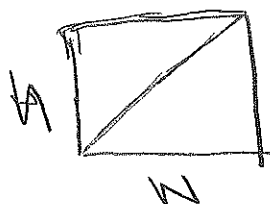
$$h^2 + 3h + 4$$

$$h^2 + 3h$$

## Quiz 7

Noelle Magana

00150446

$$\frac{12}{11}$$


$$a^2 + b^2 = c^2$$

$$a^2 + b^2 = 0.5$$

$$a^2 = 65 - b^2$$

$$d = \sqrt{600 - 10^2}$$

65

$$b^2 = \left(\frac{65}{w}\right)^2 - 65$$

$$\frac{W}{h} = 65$$

$$a = \left( \frac{65}{25} \right)^2 + 16 = 65$$

$$d = \sqrt{600 - 10^2}$$

$$b = \sqrt{\frac{65}{N}}$$

$$w = \frac{65}{w}$$

$$\sqrt{\frac{1425}{12}}$$

Aspect Ratio =

$$\begin{array}{r} 4225 \\ \times 2 \\ \hline 8450 \\ + 8450 \\ \hline 16900 \end{array}$$

$$\frac{Gh}{w^2}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

0-1-1

$$12 - 1 = 0$$

$$2^2 - 1 = 3$$

$$3^2 - 1 = 8$$

42-1-15

$$\sum_{n=0}^4 f(n) = -1 + 0 + 3 + 8 + 15$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$2^2 - 2 + 2$$

$$4 - 2 + 2 = 4$$

$$x^2 - x + 2$$

when  $x$  is 4

$$(2+h)^2 - (2+h) + 2$$

$$(h+2)(h+2)$$

$$h^2 + 2h + 2h + 4$$

$$h^2 + 4h + 4 - 2 - h + 2$$

$$h^2 + 4h + 2 - h + 2$$

$$h^2 + 3h + 4$$

$$h^2 + 3h + 4 - 4$$

$$h^2 + 3h$$

$$h^2 + 3h$$

## Quiz 7

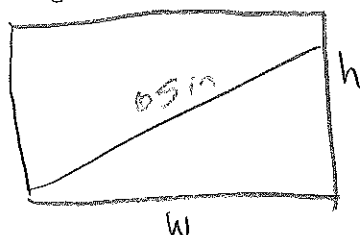
Name:

Isabella Agrusa

Section Time:

3962537

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$w^2 + h^2 = 65^2$$

$$\sqrt{w^2} = \sqrt{65^2 - h^2}$$

$$w = \sqrt{65^2 - h^2}$$

$$\frac{w}{h} = \text{aspect ratio}$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$f(n) = n^2 - 1$$

$$\sum_{n=0}^4 f(n) = (0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1) =$$

$$-1 + \cancel{0} + 3 + 8 + 15 =$$

$$2 + 8 + 15 =$$

$$10 + 15 =$$

$$\sum_{n=0}^4 f(n) = 25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$\begin{aligned}
 x = 2 &\rightarrow x^2 - x + 2 \\
 &2^2 - 2 + 2 \\
 &4 - 2 + 2 \\
 &\quad 2 + 2 \\
 &\quad \boxed{4}
 \end{aligned}$$

$$\begin{aligned}
 x = 2+h &\rightarrow x^2 - x + 2 \\
 &(2+h)^2 - (2+h) + 2
 \end{aligned}$$

$$\begin{aligned}
 &(2+h)(2+h) - (2+h) + 2 \\
 &\quad \boxed{(2+h) + 2}
 \end{aligned}$$

$$\left( (2+h) + 2 \right) - 4 ?$$

$$? \mid (2+h)^2 - (2+h) + 2 - 4$$

$$\boxed{(2+h)^2 - (2+h) + 2 - 4}$$

## Quiz 7

Name: Fleurette Juda

Section Time: 5279351



1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$A = w \cdot h$$

$$w^2 + h^2 = 65^2$$

$$w = \sqrt{65^2 - h^2}$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$f(0) = 0^2 - 1 = -1$$

$$2 + 3 = 10$$

$$f(1) = 1^2 - 1 = 0$$

$$35$$

$$f(2) = 2^2 - 1 = 3$$

$$f(3) = 3^2 - 1 = 8$$

$$f(4) = 4^2 - 1 = 15$$

$$\sum_{n=0}^4 f(n) =$$

25

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$f(x_1) = 2 = 2^2 - \cancel{2} + \cancel{2} = 4$$

$$f(x_2) = 2+h = (2+h)(2+h) - (2+h) + 2$$

$$4 + 4h + h^2 - \cancel{2} - \cancel{h} + \cancel{2}$$

$$4 + 3h + h^2$$

$$\frac{(4 + 3h + h^2) - \cancel{4}}{\cancel{2+h} - \cancel{2}} = \frac{3h + h^2}{h} = 3 + h$$



$$3h + h^2$$



## Quiz 7

Name:

Iliana DeLaRiva

Section/Time:

Perm:

6591473

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.

$$\begin{array}{r} 32.5 \\ 2 \overline{) 65.0} \\ \underline{-6} \phantom{0} \\ 05 \phantom{0} \\ \underline{-4} \phantom{0} \\ 10 \phantom{0} \\ \underline{-10} \\ 0 \end{array}$$

$$h = 32.5 \text{ in}$$

$$\text{Aspect ratio} = \frac{w}{32.5 \text{ in.}}$$

Aspect Ratio =

$$\frac{w}{32.5 \text{ inches}}$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\begin{aligned} \sum_{n=0}^4 f(n) &= n^2 - 1 = (0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1) \\ &= (-1) + (0) + (3) + (8) + (15) \\ &= 25 \end{aligned}$$

$$\sum_{n=0}^4 f(n) = 25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$(2+h)^2 - (2+h) + 2$$

$$(2+h)(2+h) - (2+h) + 2$$

$$\cancel{4} + \cancel{2h} - \cancel{4} + 2h + 2h + h^2 - \cancel{2h} + h^2 + 2$$

$$h^4 + 4h + 2 \checkmark$$

or

$$(2+h)^2 - (2+h) + 2$$

$$(2+h)(\cancel{2+h}) - (\cancel{2+h}) + 2$$

$$2 + h + 2 = 0$$

$$\begin{array}{rcl} h + \cancel{4} & = & 0 \\ -4 & & -4 \end{array}$$

$$h = -4$$

$$h^4 + 4h + 2$$



Quiz 7

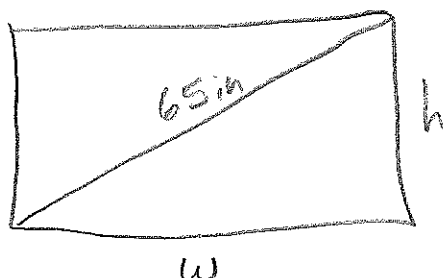
Name:

Kyla Drengler Spin

Section Time:  
Perm number

8696767

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$\begin{aligned} 65^2 &= w^2 + h^2 \\ 65^2 - h^2 &= w^2 \\ \sqrt{65^2 - h^2} &= w \end{aligned}$$

aspect ratio =  $\frac{w}{h}$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\begin{aligned} \sum_{n=0}^4 n^2 - 1 &= \overset{-1}{(0^2 - 1)} + \overset{0}{(1^2 - 1)} + \overset{3}{(2^2 - 1)} + \overset{8}{(3^2 - 1)} + \overset{15}{(4^2 - 1)} \\ &= -1 + 0 + 3 + 8 + 15 \\ &= 25 \end{aligned}$$

$$\sum_{n=0}^4 f(n) =$$

25

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$x^2 - x + 2$$

$$(2)^2 - 2 + 2 = 4 \leftarrow$$

$$(2+h)^2 - (2+h) + 2$$

$$h^2 + 4h + 4 - 2 - h + 2$$

$$\underline{h^2 + 3h + 4} \leftarrow$$

left

	2	h
2	4	2h
h	2h	h <sup>2</sup>

$$h^2 + 3h$$

## Quiz 7

Name:

Mustpha Saeed

Section Time:

4744215

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.

 $w:h$   
 $w/h$ 


$$w^2 + h^2 = 65^2$$

$$w^2 = 65^2 - h^2$$

$$w = \sqrt{65^2 - h^2}$$

$$w = \sqrt{65^2 - h^2}$$

$$\frac{\sqrt{65^2 - h^2}}{h}$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$(0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$(-1) + (0) + (3) + (8) + (15)$$

$$\begin{array}{ccc} \checkmark & & \checkmark \\ -1 & & 11 + 15 \\ \downarrow & & \checkmark \end{array}$$

$$-1 + 26$$

$$25$$

$$\sum_{n=0}^4 f(n) = 25$$

3) If  $x$  is increased from 2 to  $2 + h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$(2)^2 - 2 + 2 = 2^2 = 4$$

$$\begin{array}{r} 2^2 \quad h \\ 2 \quad 4 \quad 2h \\ h \quad 2h \quad h^2 \end{array}$$

$$(2+h)^2 - (2+h) + 2$$

$$(h^2 + 4h + 4) - 2 - h + 2$$

$$h^2 + 4h + 4 - h$$

$$h^2 + 3h + 4$$

$$h^2 + 3h + 4$$

## Quiz 7

Name:

Nissa Aguirre

Section Time:

6646624

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.

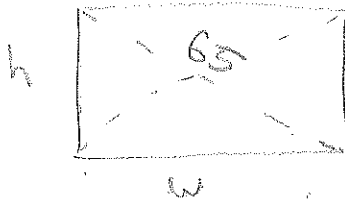
width

65 inch tv



$$\begin{array}{r} 65 \\ 65 \\ \hline 325 \\ 3920 \\ \hline 4225 \end{array}$$

$$\frac{65-w}{65-h}$$



$$h = \frac{65-w}{65-h}$$

$$\begin{aligned} h^2 + w^2 &= 65^2 \\ h^2 + w^2 &= 4225 - w^2 \\ h^2 &= 4225 - w^2 \\ h &= 65 - w \\ h &= (65 - w) \end{aligned}$$

Aspect Ratio =

$$(65 - w)$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\sum_{n=0}^4 n^2 - 1$$

$$\frac{n(n+1)}{2}$$

$$\frac{n(n+1)(2n+1)}{6}$$

$$\left( \frac{n(n+1)(2n+1)}{6} \right) - 1$$

$$\frac{0(0+1)(2(0)+1)}{6} = \frac{1}{6}$$

$$\sum_{n=0}^4 f(n) = \frac{1}{6}$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$x = 2 \rightarrow 2+h \quad x^2 - x + 2$$

$$x = 2 \quad x = 2+h \quad (2+h)^2 - (2+h) + 2$$

$$(2+h)(2+h)$$

$$4 + 2h + 2h + h^2$$

$$4 + 4h + h^2 - (2+h) + 2$$

$$6 + 4h + h^2 - 2 - h$$

$$4 + 3h + h^2$$

$$6 + 4h + h^2 - 2 + h$$

$$4 + 5h + h^2$$

$$h^2 + 3h + 4$$



## Quiz 7

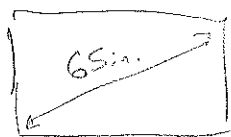
Name:

Stephane Mita

Section Time:

8038481

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$AR = \frac{w}{h}$$

$$AR = \frac{\sqrt{65^2 - h^2}}{h}$$

$$65^2 = w^2 + h^2$$

$$-h^2 \quad -h^2$$

$$w = \sqrt{65^2 - h^2}$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\sum_{n=0}^4 n^2 - \sum_{n=0}^4 1 \Rightarrow 30 - 5 = 25$$

$$\begin{array}{r} 2 \\ + 18 \\ + 15 \\ \hline 25 \end{array}$$

$$\frac{n(n+1)(2n+1)}{6}$$

$$= \frac{4(4+1)(2(4)+1)}{6} = \frac{4(5)(9)}{6} = \frac{5(\cancel{2} \cancel{6})}{\cancel{6}} = 5(6) = 30$$

$$\sum_{n=0}^4 f(n) =$$

25

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$x=2 \rightarrow x=2+h$$

$$(2+h)^2 - (2+h) + 2$$

$$(2+h)(2+h) - (2+h) + 2$$

$$4 + 2h + 2h + h^2 - 2 - h + 2$$

$$4 + 4h + h^2 - h = 4 + 3h + h^2$$

$$4 + 3h + h^2$$

## Quiz 7

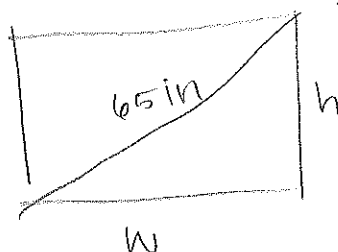
Name:

emily cohen

Section Time:

56 229 49

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



didn't  
forget!  $(w/h)$   
lol

$$\frac{\sqrt{65^2 - h^2}}{h}$$

$$w^2 = 65^2 - h^2$$

$$w = \sqrt{65^2 - h^2}$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

0 1 2 3 4

$$\sum_{n=0}^4 n^2 - 1$$

$$(0-1) + (1-1) + (4-1) + (9-1) + (16-1)$$

$$-1 + 0 + 3 + 8 + 15$$

$$= 25$$

$$\sum_{n=0}^4 f(n) =$$

25

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$f(x) = x^2 - x + 2$$

$$f(2) = 4 - 2 + 2 = 4$$

$$\begin{aligned} f(2+h) &= (2+h)^2 - (2+h) + 2 \\ &= 4 + 4h + h^2 - 2 - h + 2 \\ &= 4 + 3h + h^2 \end{aligned}$$

$$\begin{aligned} f(2+h) - f(2) &= 4 + 3h + h^2 - 4 \\ &= h^2 + 3h \end{aligned}$$

$$h^2 + 3h$$

## Quiz 7

Name:

Caret Lindsey

Section Time:

6361232

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$0^2 - 1$$

$$-1^4$$

$$-1 + 1 + -1 + 1 + -1$$

$$\sum_{n=0}^4 f(n) = -4$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$f \quad 2^2 - 2x + 2$$

$$4 - 2x + 2$$

$$\frac{4 - 2x}{1}$$

$$3h$$

## Quiz 7

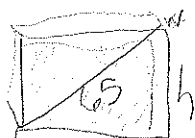
Name:

Katelyn Cole

Section Time:

#978294-7

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$ar = w/h$$

Aspect Ratio =

$$65/h$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$f(0) = 0^2 - 1 = -1$$

$$f(1) = 1^2 - 1 = 0$$

$$f(2) = 2^2 - 1 = 3$$

$$f(3) = 3^2 - 1 = 8$$

$$\sum_{n=0}^4 f(n) =$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$(2+h)^2 - (2+h) + 2$$

$$(2+h)(2+h)$$

$$4 + 2h + 2h + h^2$$

$$h^2 + 4h + 4 - 2 - h + 2$$

$$h^2 + 3h + 4$$

$$\begin{array}{c} 4 \\ \times \\ 3 \end{array}$$

$$h^2 + 3h + 4$$



## Quiz 7

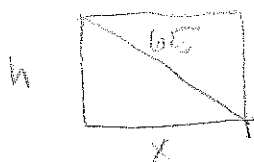
Name:

Alena Cabey

Section Time:

060030-2

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$65^2 = h^2 + x^2$$

$$-x^2 \quad -x^2$$

$$65^2 - x^2 = h^2$$

Aspect Ratio =

$$h = \sqrt{65^2 - x^2}$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\sum_{n=0}^4 n^2 - 1$$

$$(0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$-1 + 0 + 3 + 8 + 15$$

$$= 25$$

$$\sum_{n=0}^4 f(n) =$$

$$25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$2: 2^2 - 2 + 2 \rightarrow 4 - 2 + 2 = 4$$

$$2+h: (2+h)^2 - (2+h) + 2$$

$$(2+h)(2+h)$$

$$4 + 2h + 2h + h^2$$

$$4 + 4h + h^2 - 2h - 2$$

$$h^2 + 5h + 4$$

$$4 - h^2 + 5h + 4$$

$$= h^2 + 5h$$

$$h^2 + 5h$$

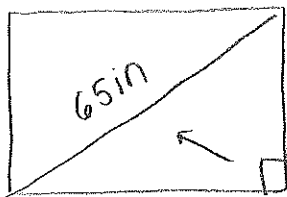
## Quiz 7

\*originally in your 8am section

Name: Isabella Bishop

Section Time: 3760204

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.

solve for  $w$ 

$$w:h = \frac{w}{h}$$

aspect ratio  
part so  
over  $h$

$$h^2 + w^2 = 65^2 - h^2$$

$$\int w^2 = \int 65^2 - h^2$$

$$w = \frac{\sqrt{65^2 - h^2}}{h}$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h} \text{ in}$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$f(x) = y$$

$$\sum_{n=0}^4 n^2 - 1$$

start  
@ zero  
go till 4

$$16 - 1 = 15$$

$$(0^2 - 1) + (1^2 - 1) + (2^2 - 1) + (3^2 - 1) + (4^2 - 1)$$

$$(0 - 1) + (1 - 1) + (4 - 1) + (9 - 1) = \sum_{n=0}^4 f(n) = 25$$

$$-1 + 0 + 3 = 2 + 8 + 15 = 10 + 15 = 25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

in terms of  $h$  means  $h$  in your answer

$$x = 2 \rightarrow (2^2) - (2) + 2 = 4 - \cancel{2} + \cancel{2} = \textcircled{4}$$

$$x = 2+h \rightarrow (2+h)^2 - (2+h) + 2$$

$$\begin{array}{c} \text{FOIL} \\ (2+h)(2+h) \end{array} \quad | \quad -2h - h + 2$$

$$4 + 2h + 2h + h^2 \quad \downarrow$$

$$\textcircled{4} + \textcircled{4h} + h^2 - \textcircled{2h} - \textcircled{h} + \textcircled{2}$$

$$6 + 2h$$

$$\textcircled{6 + h + h^2}$$

$$\begin{array}{r} 6 + h + h^2 \\ - 4 \end{array}$$

$$\textcircled{2 + h + h^2}$$

it increases by

$$h^2 + h + 2$$

## Quiz 7

Name:

Zihu Zhu

Section Time:

5381462

1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.

$$\sqrt{65^2 - h^2} : h$$

Aspect Ratio =

$$\sqrt{65^2 - h^2} : h$$

2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$-1 + 0 + 3 + 8 + 15$$

$$\sum_{n=0}^4 f(n) =$$

25

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$\begin{aligned} & \cancel{4} + h^2 + 4h - \cancel{2} - h + \cancel{2} \\ &= \cancel{4} + 2 - \cancel{2} \end{aligned}$$

$$h^2 + 3h$$

## Quiz 7

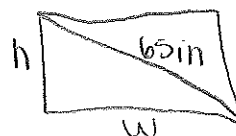
Name:

Brandy Rodriguez

Section Time:

6565034

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$\begin{aligned}
 h^2 + w^2 &= 65^2 \\
 w^2 &= \sqrt{65^2 - h^2} \\
 w &= \sqrt{65^2 - h^2} \quad \frac{w}{h} \text{ aspect ratio}
 \end{aligned}$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

0	1	2	3	4
$0^2 - 1$	$1^2 - 1$	$2^2 - 1$	$3^2 - 1$	$4^2 - 1$
(-1)	(0)	(3)	(8)	(15)

$$-1 + 0 + 3 + 8 + 15$$

$$\sum_{n=0}^4 f(n) =$$

25

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$x^2 - x + 2$$

$$2^2 - 2 + 2$$

$$4 - 2 + 2$$

$$2 + 2$$

$$4$$

$$(2+h)(2+h) - (2+h) + 2$$

$$4 + 2h + 2h + h^2$$

$$\cancel{4} + 4h + h^2 - \cancel{2} - h + \cancel{2}$$

$$4 + 4h + h^2 - h$$

$$4 + 3h + h^2$$

$$(2+h)(2+h) - (2+h) + 2$$

$$4 + 2h + 2h + h^2$$

$$4 + 4h + h^2 - \cancel{2} - h + \cancel{2}$$

$$\cancel{4} + 3h + h^2$$

$$3h + h^2$$



## Quiz 7

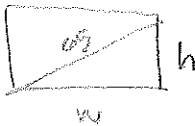
Name:

Annalise Evans

Section Time:

5301023

- 1) The aspect ratio of a screen is the ratio of the width to the height. You are considering the purchase of a 65in TV (TV sizes are measured by the diagonal, not the length or width). In addition to this information, the manufacturer will only disclose the height of the TV, not the width. Express the aspect ratio in terms of the height  $h$  of the TV in inches.



$$w^2 + h^2 = 65^2$$

$$w^2 = 65^2 - h^2$$

$$w = \sqrt{65^2 - h^2}$$

Aspect Ratio =

$$\frac{\sqrt{65^2 - h^2}}{h}$$

- 2) If  $f(n) = n^2 - 1$ , compute  $\sum_{n=0}^4 f(n)$ .

$$\sum_{n=0}^4 n^2 - 1$$

$$-1 + 0 + 3 + 8 + 15 = 25$$

$$\sum_{n=0}^4 f(n) = 25$$

3) If  $x$  is increased from 2 to  $2+h$ , how much does  $x^2 - x + 2$  increase? Your final answer should be in terms of  $h$ .

$$2^2 - 2 + 2$$

$$4$$

$$(2+h)^2 - (2+h) + 2$$

$$(2+h)(2+h) - h$$

$$4 + 4h + h^2 - h$$

$$4 + 3h + h^2$$

$$4 + 3h + h^2 - 4$$

$$3h + h^2$$

$$3h + h^2$$