

Warm Up

5/28/19

#31- 37 on Released EOC

- 31 The table below shows the U.S. average life expectancy at birth, in years, in various decades.

Years since 1930	Life Expectancy at Birth
10	62.9
20	68.2
30	69.7
40	70.8
50	73.7
60	75.4
70	77.0
80	78.7

What is the meaning of the slope of the linear best-fit equation for the data?

- A The predicted average life expectancy at birth in 1930 was about 62.7 years.
- B The predicted average life expectancy at birth in 1930 was about 57.6 years.
- C The average life expectancy at birth increases by about 6.7 each year.
- D The average life expectancy at birth increases by about 0.2 each year.

32 The choices below are data sets. In the choices, w is a constant. Each choice has the same mean. Which choice has the greatest standard deviation?

A $w-2, w-1, w, w+1, w+2$

B $w-2, w-2, w, w+2, w+2$

C $w-3, w-1, w, w+1, w+3$

D $w-3, w, w, w, w+3$

$w=5$

OX

A 1.4

B 1.79

C 2.0

D 1.9

33 Abby scored 87, 93, 96, and 89 on her first four history quizzes. What score does Abby need to get on her fifth quiz to have an average of exactly 91 on her history quizzes?

A 90

B 94

C 98

D 100

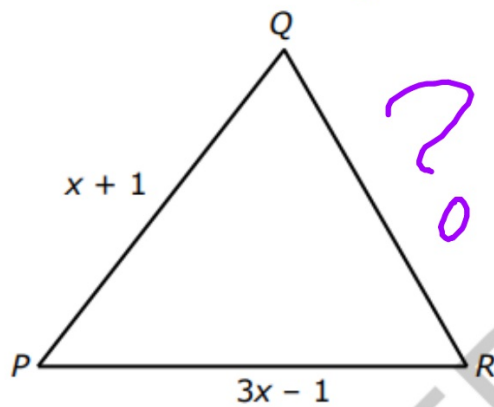
$x = 5^{\text{th}}$ quiz score

$$\cancel{(5)} \frac{365 + x}{5} = 91(5)$$

$$365 + x = 455$$

$$x = 90$$

34 The perimeter of the triangle below is $8x - 6$.



?

$$\begin{array}{r} 8x - 6 \\ - 4x + 0 \\ \hline 4x - 6 \end{array}$$

Which expression represents the length of \overline{QR} ?

- A $4x - 4$
- B $4x - 6$
- C $6x - 4$
- D $6x - 8$

35 What are the solutions to the equation $4x^2 - 52x + 169 = 121$?

A {1, -12}

B {-1, 12}

C {-1, -12}

D {1, 12}

$$\begin{array}{r} -121 \quad -121 \\ \hline 4x^2 - 52x + 48 = 0 \end{array}$$

$$4(x^2 - 13x + 12) = 0$$

$$(x^2 - x)(-12x + 12) = 0 \quad ac = 12$$
$$x(x-1) - 12(x-1) = 0 \quad \begin{array}{r} 12 \\ -1 \quad -12 \end{array}$$

$$(x-12)(x-1) = 0$$

$$x-12=0 \quad x-1=0$$

$$x=12 \quad x=1$$

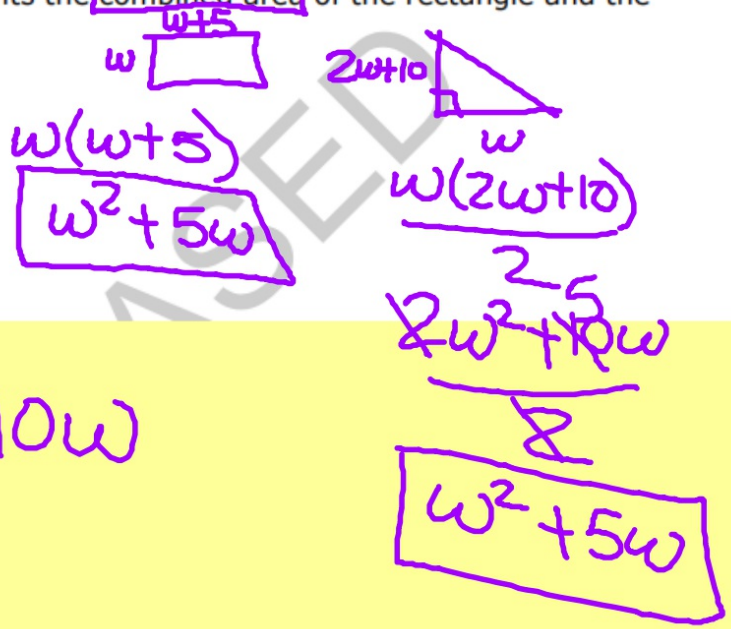
36 David has a rectangle and a right triangle.

- ✓ The length of the rectangle is 5 more than its width, w .
- ✓ The length of the shorter leg of the triangle is equal to the rectangle's width.
- ✓ The length of the longer leg of the triangle is twice the length of the rectangle.

$$2(w+5) = 2w+10$$

Which function, $f(w)$, represents the combined area of the rectangle and the triangle?

- A $f(w) = 2w^2 + 10w$
- B $f(w) = 3w^2 + 15w$
- C $f(w) = w^2 + 10w + 25$
- D $f(w) = w^2 + 15w + 50$



$$2w^2 + 10w$$

- 37 The table below shows the number of hours 7 students studied for a math test and the grade each student earned on the test.

Student	Hours Studied (x)	Test Grade (y)
Mary	2.00	84
Jonathan	1.75	86
Susan	2.00	88
Terry	3.00	94
Patrick	3.50	95
Amanda	3.50	93
Darius	2.25	89

Residual
Actual-Predicted
predicted is more for Amanda

-1.67

How does Amanda's test score compare to the score predicted using the linear best-fit model of data for a student who studied 3.50 hours?

- A Amanda scored about 5 points lower than the score predicted for a student who studied 3.50 hours.
- B Amanda scored about 5 points higher than the score predicted for a student who studied 3.50 hours.
- C Amanda scored about 2 points lower than the score predicted for a student who studied 3.50 hours.
- D Amanda scored about 2 points higher than the score predicted for a student who studied 3.50 hours.