

14. If $f(x) = x^2 + 2$, which of the following could be a value of $f(x)$?

(A) -2
(B) -1
(C) 0
(D) 1
(E) 2

16. If the perimeter of rectangle $ABCD$ is equal to p , and

$$x = \frac{2}{3}y, \text{ what is the value of } y \text{ in terms of } p?$$

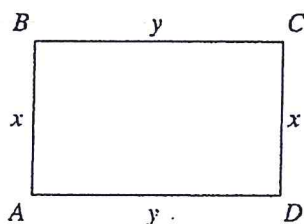
(A) $\frac{p}{10}$

(B) $\frac{3p}{10}$

(C) $\frac{p}{3}$

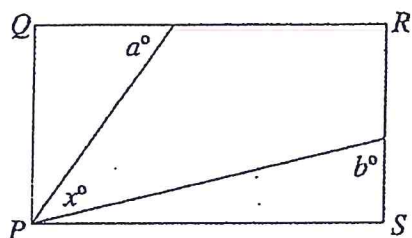
(D) $\frac{2p}{5}$

(E) $\frac{3p}{5}$



17. A basketball team had a ratio of wins to losses of 3:1. After the team won six games in a row, its ratio of wins to losses became 5:1. How many games had the team won before winning six games in a row?

(A) 3
(B) 6
(C) 9
(D) 15
(E) 24



18. In rectangle $PQRS$ above, what is $a + b$ in terms of x ?

(A) $90 + x$
(B) $90 - x$
(C) $180 + x$
(D) $270 - x$
(E) $360 - x$

ALG 2 Bellwork Answers

12-10-15

(14) since $x^2 \geq 0$, $x^2 + 2$ can't be smaller than 2.

E

(16) $p = 2x + 2y \rightarrow P = 2\left(\frac{2}{3}y\right) + 2y$

$3(P) = \left(\frac{4}{3}y + 2y\right)3$

$3p = 4y + 6y$

$3p = 10y \rightarrow$

$y = \frac{3p}{10}$

B

(17)

$\frac{W}{L} = \frac{3}{1}$

$3L = W$

$\frac{W+6}{L} = \frac{5}{1}$

$5L = W+6$

$5L = 3L + 6$

$2L = 6$

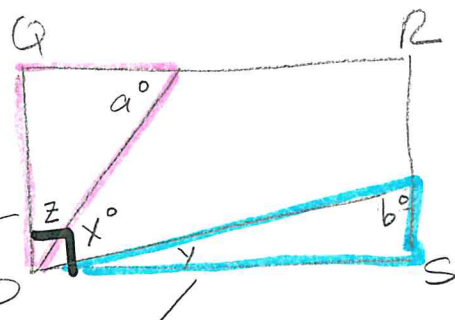
$L = 3 \rightarrow$

$\frac{W}{L} = \frac{3}{1}$ becomes

$\frac{W}{3} = \frac{3}{1} \quad (W=9)$

C

(18)



$z = 90^\circ - a^\circ$

$y = 90^\circ - b^\circ$

$x^\circ + y^\circ + z^\circ = 90^\circ$

$x^\circ + 90^\circ - b^\circ + 90^\circ - a^\circ$

$x^\circ + 180^\circ - a^\circ - b^\circ = 90^\circ$
 $+a^\circ + b^\circ$

$x^\circ + 180^\circ = 90^\circ + a^\circ + b^\circ$
 $-90^\circ \quad -90^\circ$

$x + 90^\circ = a^\circ + b^\circ$

A