

## SM2-A HW #11-8 (Test Preview)

**Find the probability of the event occurring. P(R and B)**

- 1) A bag contains three red marbles and three blue marbles. You randomly pick a marble and then pick a second marble without returning the marbles to the bag. The first marble is red and the second marble is blue.

A)  $\text{prob} = 3/9 * 3/8$       B)  $\text{prob} = 3/6 * 3/5$       C)  $\text{prob} = 6/8 * 6/7$       D)  $\text{prob} = 3/6 * 3/6$

- 2) You flip a coin and then roll a fair six-sided die. Find the probability that the coin lands heads-up and the die shows a four.

A)  $\text{Prob} = 1/2 * 2/6$       B)  $\text{Prob} = 1/2 * 1/6$       C)  $\text{prob} = 1/4 * 2/6$       D)  $\text{prob} = 2/8$

**Find the probability.**

- 3) There are eight nickels and six dimes in your pocket. You randomly pick a coin out of your pocket and then return it to your pocket. Then you randomly pick another coin. The first coin is a nickel and the second coin is a dime.

A)  $\frac{12}{49} \approx 0.245$       B)  $\frac{7}{26} \approx 0.269$   
 C)  $\frac{2}{9} \approx 0.222$       D)  $\frac{4}{25} = 0.16$

- 4) A basket contains eight apples and seven peaches. You randomly select a piece of fruit and then return it to the basket. Then you randomly select another piece of fruit. Both pieces of fruit are apples.

A)  $\frac{1}{16} \approx 0.063$       B)  $\frac{3}{11} \approx 0.273$   
 C)  $\frac{40}{169} \approx 0.237$       D)  $\frac{64}{225} \approx 0.284$

- 5) This used to be Question #5a. Problem #5a,b,c,d,e,f has been changed to problem 5,6,7,8,9,10. THAT MEANS that for all of the follow-on problems you have to add 5 to your problem number to match up with the problem number in this NEW multiple choice version of the assignment.

Use the following 2-Way table:

	Silver	White	total
Honda	5	7	12
Toyota	3	2	5
totals	8	9	17

$P(\text{Toyota}) = ?$

A)  $\frac{2}{5}$       B)  $\frac{5}{17}$       C)  $\frac{2}{9}$       D)  $\frac{3}{17}$

- 6) This used to be Question #5b)  
Use the following 2-Way table:

	Silver	White	total
Honda	5	7	12
Toyota	3	2	5
totals	8	9	17

$P(\text{White and Honda}) = ?$

- A)  $\frac{7}{17}$       B)  $\frac{12}{17}$   
C)  $\frac{7}{9}$         D)  $\frac{7}{12}$

- 8) This used to be Question #5d)  
Use the following 2-Way table:

	Silver	White	total
Honda	5	7	12
Toyota	3	2	5
totals	8	9	17

$P(W / T) = ?$

- A)  $\frac{9}{17}$       B)  $\frac{2}{5}$   
C)  $\frac{2}{17}$       D)  $\frac{2}{9}$

- 10) This used to be Question #5f)  
Use the following 2-Way table:

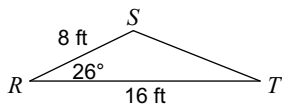
	Silver	White	total
Honda	5	7	12
Toyota	3	2	5
totals	8	9	17

$P(W \text{ or } H) = ?$

- A)  $\frac{14}{17}$       B)  $\frac{21}{17}$   
C)  $\frac{7}{9}$         D)  $\frac{7}{17}$

**Find the area of each triangle to the nearest tenth.**

11)



- A) 33.3 ft<sup>2</sup>      B) 66.5 ft<sup>2</sup>  
C) 28.1 ft<sup>2</sup>      D) 31 ft<sup>2</sup>

- 7) This used to be Question #5c)  
Use the following 2-Way table:

	Silver	White	total
Honda	5	7	12
Toyota	3	2	5
totals	8	9	17

$P(\text{Honda given that it is silver}) = ?$

- A)  $\frac{5}{12}$       B)  $\frac{5}{8}$   
C)  $\frac{5}{17}$       D)  $\frac{12}{17}$

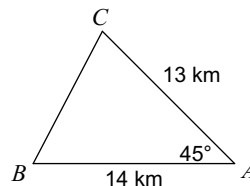
- 9) This used to be Question #5e)  
Use the following 2-Way table:

	Silver	White	total
Honda	5	7	12
Toyota	3	2	5
totals	8	9	17

$P(\text{Silver or Toyota}) = ?$

- A)  $\frac{10}{17}$       B)  $\frac{13}{17}$   
C)  $\frac{5}{17}$       D)  $\frac{8}{17}$

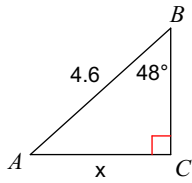
12)



- A) 51.3 km<sup>2</sup>      B) 128.7 km<sup>2</sup>  
C) 75.8 km<sup>2</sup>      D) 64.3 km<sup>2</sup>

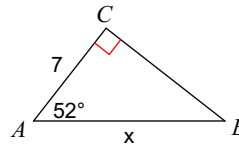
Find the measure of each side indicated. Round to the nearest tenth.

13)



- A) 2.7      B) 3.7  
C) 3.1      D) 3.4

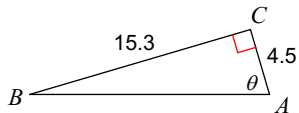
14)



- A) 11.4      B) 13.3  
C) 9.8      D) 13

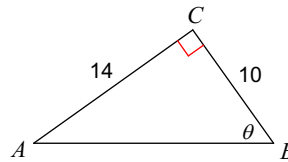
Find the measure of each angle indicated. Round to the nearest tenth.

15)



- A) 73.6°      B) 63.5°  
C) 54.6°      D) 62.7°

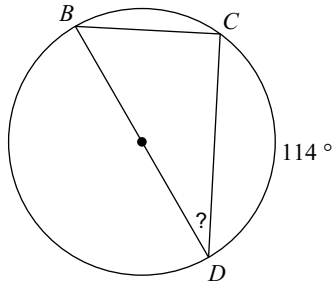
16)



- A) 66.3°      B) 38.8°  
C) 54.5°      D) 47.5°

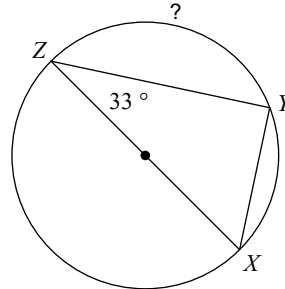
Find the measure of the arc or angle indicated.

17)



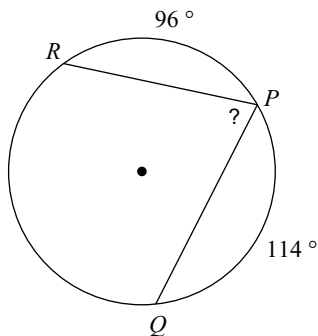
- A) 33°      B) 24°  
C) 21°      D) 29°

18)



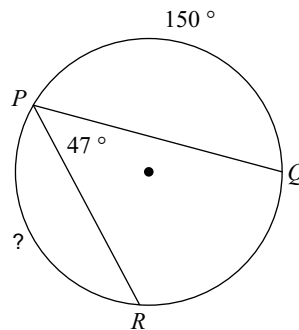
- A) 142°      B) 89°  
C) 167°      D) 114°

19)



- A) 74°      B) 75°  
C) 69°      D) 99°

20)



- A) 73°      B) 65°  
C) 170°      D) 116°

**Perform the indicated operation.**

21)  $f(x) = x^2 + 3 + x$   
 $g(x) = -x - 4$   
Find  $(f + g)(x)$

- A)  $x^2 - x - 9$
- B)  $-7x - 5$
- C)  $x^2 - 1$
- D)  $-x^3 - 2x^2 - 3x + 2$

23)  $f(x) = 4x - 2$   
 $g(x) = x^2 - 5$   
Find  $(f - g)(x)$

- A)  $x^2 + 4x - 3$
- B)  $-x^2 + 4x + 3$
- C)  $-2x + 3$
- D)  $x^2 - 4x - 3$

25)  $h(t) = -2t - 3$   
 $g(t) = t^2 + 3t$   
Find  $(2h + 2g)(t)$

- A)  $2t^2 + 2t - 6$
- B)  $-12t - 4$
- C)  $2t^2 - 2t - 6$
- D)  $-2t^3 + 10t^2 - 4t - 2$

27)  $f(n) = 3n + 5$   
 $g(n) = n^3 + 2n^2$   
Find  $(4f + 4g)(2)$

- A) 52
- B) 108
- C) 24
- D) 88

29)  $g(n) = -4n + 4$   
 $f(n) = 3n - 2$   
Find  $(g \circ f)(10)$

- A) 130
- B) -108
- C) -110
- D) -60

31)  $g(n) = n - 4$   
 $h(n) = -3n^3 + 3n$   
Find  $(g \circ h)(n)$

- A)  $64n^3 + 16n^2 - 4n - 1$
- B)  $n^3 + 12n^2 + 48n + 59$
- C)  $-3n^3 + 36n^2 - 141n + 180$
- D)  $-3n^3 + 3n - 4$

22)  $f(t) = t - 1$   
 $g(t) = t^2 + 3 - t$   
Find  $(f + g)(7)$

- A) 6
- B) 27
- C) 3
- D) 51

24)  $f(n) = 3n + 5$   
 $g(n) = 4n + 1$   
Find  $(f \cdot g)(n)$

- A)  $3n^4 - 6n$
- B)  $-2n^2 + 3n + 9$
- C)  $2n^3 - 6n^2 + 4n$
- D)  $12n^2 + 23n + 5$

26)  $f(a) = a^2$   
 $g(a) = a - 1$   
Find  $(3f - 5g)(-6)$

- A) 157
- B) 143
- C) -165
- D) 117

28)  $g(t) = t - 5$   
 $h(t) = 2t + 2$   
Find  $(g \circ h)(-7)$

- A) 5
- B) -22
- C) 6
- D) -17

30)  $g(n) = 3n^2 + 2n$   
 $f(n) = -4n - 4$   
Find  $(g \circ f)(n)$

- A)  $n^2 + 3n$
- B)  $-12n^2 + 8n - 4$
- C)  $48n^2 + 88n + 40$
- D)  $-12n^2 - 8n - 4$