

1. The radius of a circle multiplied by $\frac{3}{4}$. What is the change ...

- a. on area? $\times \frac{9}{16}$ (or .56) b. on perimeter? $\times \frac{3}{4}$

2. The base and height of a triangle are multiplied by 6. What is the change ...

- a. on area? $\times 36$ b. on perimeter? $\times 6$

3. Describe the effect on the area of a trapezoid if...

- a. the height is tripled $\times 3$
 b. Both bases are tripled $\times 3$
 c. the bases and height are tripled $\times 9$

4. The base of a parallelogram is multiplied by 5 and the height is multiplied by 9. What is the effect on area of parallelogram?

$\times 45$

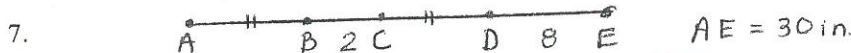
5. The area of a square was 32 sq. cm. Now it is 64 sq. cm. (doubled). How did the length of the sides change?

$\times \sqrt{2}$ (or 1.41)

6. You are making a quilt with dimensions of 4 yards by 6 yards. The store where you are buying the cloth for the backing (one full side of quilt) sells by the square foot. How many square feet of cloth do you need?

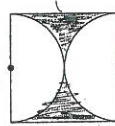
$(4 \times 3) \times (6 \times 3)$
 $12 \times 18 = 216 \text{ft}^2$

Both dimensions must be converted



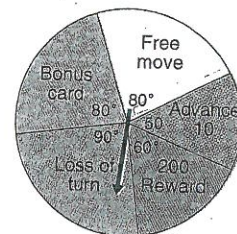
- a. Probability a point is on \overline{AD} $\frac{11}{15}$ or $.73$
 b. Probability the point is not on \overline{BC} $\frac{14}{15}$ or $.93$

9. What is the probability a point chosen at random will lie in the shaded region?

 $\frac{x^2 - \pi(\frac{1}{2}x)^2}{x^2} = .21$

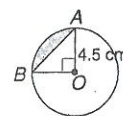
10. Find the probability of each outcome: (use spinner at right)

- a. Free move $\frac{2}{9}$ or .22
 b. Bonus card or \$200 reward $\frac{7}{18}$ or .39



11. What is the probability a point chosen at random will lie in the shaded region?

$\frac{\frac{1}{4} \pi 4.5^2 - \frac{1}{2} (4.5)(4.5)}{\pi 4.5^2} = \frac{5.78}{63.62} = .09$



12. The center ring of target at right has a radius of one. Each successive ring has a radius of one greater than previous ring.

- a. P(score 10 pt) $\frac{\pi 1^2}{\pi 4^2} = \frac{1}{16}$ or .0625
 b. P(score 8 points)

$\frac{\pi 2^2 - \pi 1^2}{\pi 4^2} = \frac{3}{16}$ or .1875

