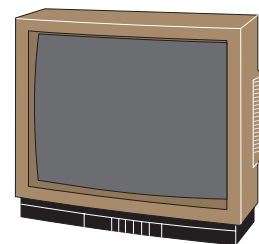

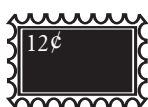




Workout 4



1. \$ _____ Jake's Televisions is having a 30% off sale. One of the televisions at Jake's is on sale for \$210. What would the same television sell for if it were on sale for only 20% off?
2. _____ A point P that starts at a positive coordinate on the number line is reflected over the origin to point Q. Then point Q is reflected over the point at coordinate 3 to point R. Finally, point R is reflected over the point at coordinate 10 back to point P. What is the coordinate of point P?
3. _____ The sum of the squares of four consecutive positive, even integers is a three-digit palindrome. What is the sum of the four integers? Note: A palindrome is something that reads the same forward and backward.
4. _____ days A certain YouTube video on the internet has a hit count of 1900 at the end of the day today and is getting an average of 25 hits a day. A different YouTube video has a hit count of 2200 at the end of the day today and is getting an average of 15 hits per day. If these hit rates continue, in how many days will the two videos have the same hit count?
5. _____ seq Team A defeated Team B in a water polo match by a score of 4 to 3. If Team A was never behind during the match and one point is scored per goal, how many scoring sequences were possible?
6. _____ Six numbers form an arithmetic sequence. The mean of the numbers equals the range. If the smallest number is 30, what is the largest number?
7. _____ A sphere and a cube have the same volume. What is the ratio of the diameter of the sphere to the edge length of the cube? Express your answer as a decimal to the nearest hundredth.
8. _____ 18-cent stamps  Chris bought three times as many 18-cent stamps as 12-cent stamps. He paid a total of \$9.90 for the stamps. If he only bought 18-cent and 12-cent stamps, how many 18-cent stamps did he buy? 
9. _____ factors How many odd, perfect-square factors does the number $2^4 \times 3^6 \times 5^{10} \times 7^9$ have?
10. (,) In triangle ABC, the vertices are located at A(0, 4), B(12, 0) and C(-4, 0). What are the coordinates of the point where the perpendicular bisectors of the sides of the triangle intersect each other?