

## Act One: An AppleCare a Day

Should you ever buy AppleCare?

1 To determine how much a warranty is worth, we can calculate its **expected value**, E. For instance, if there's a 20% chance that a \$1,000 computer will fail, the warranty has an expected value of  $0.2 \times $1000 = $200$ .

E = pR  $p = \text{probability of failure} \quad R = \text{replacement cost}$ 

Look at the devices below. For each probability of failure, calculate how much AppleCare would be worth.









2GB iPod Shuffle (\$49) 32GB iPod Touch (\$299) 13-inch MacBook Pro (\$1,499) 21.5-inch iMac (\$1,499)

ilure	1%		
of Fa	10%		
Prob	50%		

2 Read the following statements about AppleCare, and explain whether you agree or disagree with them.

a. "The MacBook Pro and iMac cost the same, so AppleCare is worth the same for them."

b. "AppleCare is worth more for more expensive devices than it is for less expensive ones."

c. "For the same device, AppleCare may be worth different amounts to different people."

d. "If the iMac has a 50% chance of breaking and AppleCare costs \$700, you should buy it."



## **Act Two: Fine Print**

For each Apple device below, calculate what the chance of failure would have to be to justify buying AppleCare. Based on this, would you recommend buying AppleCare for any of them? Explain.

Device	Price	AppleCare	Prob. of Failure
32GB iPod Touch	\$299	\$59	
64GB iPod Touch	\$399	\$59	
13-inch MacBook Pro	\$1,499	\$249	
15-inch MacBook Pro	\$1,799	\$349	
21.5-inch iMac	\$1,499	\$169	
27-inch iMac	\$1,799	\$169	
Mac Pro (maxed out)	\$11,299	\$249	

4 When you buy an iPod Touch, it's automatically covered for the first year. AppleCare extends this coverage by an additional year, but it doesn't cover every possible issue.

Look at the **terms and conditions** for AppleCare. For each issue, check which would be automatically covered, which would be covered under AppleCare, and which wouldn't be covered at all. Then, how would the terms and conditions affect your decision whether or not to purchase AppleCare?

	Included	AppleCare	Not Covered
<ul> <li>iPod fell onto kitchen floor and screen is cracked</li> </ul>			
<ul> <li>iPod fell into sink full of water and won't turn on</li> </ul>			
<ul> <li>Buttons stopped working after two months; defective</li> </ul>			
After three years, battery no longer holds a charge			
Someone stole iPod from your backpack			
After fourteen months, iPod won't turn on; cause unknown			