

Risk vs Reward

A Kids Adventure Workbook for Anyone Who Has Ever Wanted Something They Might Not Get

“Risk is not a bad word. Risk is what you pay to find out. This workbook teaches you to count that price before you pay it - with a lemonade stand, a dozen eggs, a stack of trading cards, and one honest week of practice.”

Risk-

- ▶ Say what risk actually means in one sentence: risk is the range of things that could happen when you do not get to know the ending first.
- ▶ Tell the difference between a risk and a certainty, and name what each one costs you.
- ▶ Show with real arithmetic why several small tries you can repeat usually beat one big try you cannot.
- ▶ Explain diversification using eggs, baskets, and a wagon - no stock market required - including the case where spreading things out does not help.
- ▶ Run any decision through three questions before you commit: what could go right, what could go wrong, and what does it cost to find out.

What Risk Actually Means

Most people hear the word risk and think danger. That is only half of it. Risk means you do not get to know the ending before you start. That is all. When you do not know the ending, more than one thing can happen - some of it good, some of it not - and risk is the whole spread of what might happen, not just the bad part.

Here is the test. If you already know exactly how something turns out, there is no risk in it. Putting a dollar in your pocket is not risky; the dollar will still be a dollar. Trying out for the team is risky, because you cannot know today whether your name is on the list next Friday. Neither one is better than the other. They are just different, and they cost different things.

The reason grown-ups get this wrong is that they treat risk as a feeling instead of a number. A feeling says 'this is scary.' A number says 'the most I can lose here is eight dollars, and I have eight dollars.' Feelings are useful - they tell you to slow down and look. But you make the actual decision with the number. This whole workbook is about finding the number.

THE LEMONADE STAND THAT MET A RAINY SATURDAY

You spend 8 dollars of your own money on lemons, sugar, and cups. Your plan is to sell 40 cups at 75 cents each on a sunny Saturday. Then Saturday shows up cloudy and wet. Every number below is worked out so you can check it yourself.

What you spent before you knew anything (supplies)	\$8.00
Sunny plan: 40 cups x \$0.75	\$30.00
Sunny plan profit: \$30.00 - \$8.00	\$22.00
Rainy reality: 12 cups x \$0.75	\$9.00
Rainy profit: \$9.00 - \$8.00	\$1.00
If a storm hits and you sell only 4 cups: \$3.00 - \$8.00	-\$5.00
Worst case, zero cups sold - the most you can possibly lose	-\$8.00

→ The risk was never 'the rain.' The risk was the whole range: anywhere from losing 8 dollars to making 22. You could not control the weather, but you could count the range before you spent a cent - and 8 dollars was a range you could live with.

Risk and Certainty: Two Different Price Tags

A certainty is something you can count on. Five dollars for washing the car every Saturday is a certainty - if you wash the car, you get the five dollars. Certainty is comfortable, and there is nothing wrong with wanting it. Adults build a big part of their money life on certain things on purpose.

But certainty has a price, and the price is that it is usually small. Nobody pays you extra for doing the thing everybody already knows will work. The reason uncertain things sometimes pay more is that fewer people are willing to sit through the not-knowing part. You are not being paid for being brave. You are being paid for being patient while the answer takes its time.

So the real question is never 'should I take a risk or play it safe?' The real question is: how much of my stuff should be the certain kind, and how much can be the uncertain kind? Almost every sensible adult keeps both. They keep money they are certain about, so a bad surprise cannot wreck them, and then - only then - they let some other part of their life be uncertain.

THE SURE THING AND THE MAYBE, SIDE BY SIDE

Two ways to earn money over the next four weeks. Option A: wash the family car every Saturday for 5 dollars, agreed in advance. Option B: print dog-walking flyers for 3 dollars and see who calls. Assume walks pay 6 dollars each and each neighbor who says yes books one walk a week for four weeks.

Option A - certain: 4 Saturdays x \$5.00	\$20.00
Option A - the range of what could happen	\$20.00 to \$20.00
Option B - what it costs to find out (flyers)	\$3.00
Option B - if 2 neighbors say yes: 2 x 4 weeks x \$6.00, minus \$3.00	\$45.00
Option B - if 1 neighbor says yes: 1 x 4 weeks x \$6.00, minus \$3.00	\$21.00
Option B - if nobody calls	-\$3.00
Option B - the range of what could happen	-\$3.00 to \$45.00

→ Neither column is the right answer. Option A hands you 20 dollars and no surprises. Option B risks 3 dollars for a range that runs from a small loss to more than double Option A. Notice what is actually being compared: not brave versus boring, but a flat 20 against a 3-dollar ticket to find out.

- ★ There is a third option almost nobody notices: do both. Wash the car AND print the flyers. The 20 dollars is your floor, and the flyers cost 3 dollars out of it. Most good grown-up money plans are shaped exactly like that - a certain floor first, uncertainty on top.

Small Tries Beat One Big Try

A try is any attempt where you do not know the ending: a project, a tryout, a stand, a new skill, an idea you want to test. Here is one of the most useful things you will ever learn about tries. If you have a fixed amount of money or time, breaking it into several small tries usually beats spending it all on one big one.

This is not a feeling. It is arithmetic, and you can check it on a calculator. Suppose any single try has a 1-in-4 chance of working out. Do it once, and you have a 1-in-4 chance - 25 percent. Do it four times, each with the same chance, and the odds that all four come up empty are $\frac{3}{4} \times \frac{3}{4} \times \frac{3}{4} \times \frac{3}{4}$, which is about 32 percent. Which means the chance that at least one works is about 68 percent. Same money. Very different position.

There is an honest catch, and you should know it. That arithmetic only holds if the tries are truly separate - if one

Diversify: Say It With Eggs, Not Stocks

Diversify is a long word for a short idea: do not let one accident take everything. You have heard the saying about not putting all your eggs in one basket. Almost nobody does the counting that makes it real, so let us do the counting.

You have 12 eggs. Carry them in one basket and trip, and you lose 12 - all of them. Carry them in four baskets of three, trip, and drop one basket, and you lose 3. Nine survive. That is 75 percent of your eggs still fine after the exact same accident. Spread them across twelve separate little containers and one drop costs you a single egg. Nothing about your clumsiness changed. Only the size of what one mistake can take.

Now the part most people skip. Suppose you carry all four baskets in the same wagon and the wagon tips over. You lose all 12 anyway. Spreading things out only protects you if the pieces can fail separately. Four baskets in one wagon is not four risks - it is one risk wearing a costume. Grown-ups get caught by this constantly, and now you will not.

TWELVE EGGS, THREE WAYS TO CARRY THEM

Same 12 eggs, same clumsy walk across the same kitchen, one dropped container in each version. The only thing that changes is how the eggs were divided up.

One basket of 12 - eggs lost when you drop it	12 of 12 (100%)
Four baskets of 3 - eggs lost when you drop one basket	3 of 12 (25%)
Four baskets of 3 - eggs that survive	9 of 12 (75%)
Twelve single containers - eggs lost when you drop one	1 of 12 (8.3%)
Twelve single containers - eggs that survive	11 of 12 (91.7%)
Four baskets, all riding in ONE wagon that tips	12 of 12 (100%)

→ Splitting things up does not make you less clumsy - it makes each stumble cheaper. But check the wagon. If everything you own can be taken down by the same single event, you have not spread anything out; you have just used more containers.

- ✓ Do the wagon check on something real this week. If your whole allowance, your birthday money, and your saved-up cash all live in the same jacket pocket, that pocket is your wagon. Where else could some of it live?

What 'Reward' Really Costs

Reward is the good ending - the thing you were hoping for. The trap is that rewards get advertised and costs stay quiet. Someone tells you about making the team. Nobody hands you an invoice for the 36 hours of practice, the tryout fee, and the eight Saturdays you did not spend doing something else.

So do what the ads will not do: write the bill yourself. Every reward has four kinds of cost. Money you hand over. Time you spend. Effort, which is time that also makes you tired. And the quiet one - the thing you gave up in order to do this instead. That last one has a grown-up name, opportunity cost, and it is the cost people forget every single time.

Here is the useful trick. You usually cannot calculate the reward, because the reward has not happened yet and might not. But you can almost always calculate the cost of finding out, right now, exactly, before you commit. So decide on that number. 'Is this reward worth it?' is a guess. 'Can I afford what it costs to find out?' is a question with an answer.

How to Decide Before You Risk: The Three Questions

Every risk decision in this workbook comes down to three questions you ask BEFORE you commit, not after. One: what could go right? Two: what could go wrong? Three: what does it cost to find out? Write the answers down. Written answers are harder to lie to than the ones you keep in your head.

Then two more questions decide whether you actually go. Can I afford the worst case - not 'would I be sad,' but could I genuinely take the hit and keep going? And can I do this again if it does not work? A risk you can afford and repeat is a normal part of a good life. A risk that ends the game if it goes wrong is a completely different animal, no matter how good the reward looks.

One last rule, and it is the one that will save you the most: anything that needs your answer RIGHT NOW is a warning. Good deals survive a night of sleep and a conversation with an adult you trust. Rushing you is not enthusiasm - it is a way to stop you from doing the three questions. When someone will not let you count, that is your answer.

THE TRADING-CARD TRADE, RUN THROUGH THE THREE QUESTIONS

A kid at school offers to trade one rare-looking card for three of your commons. In the trading everybody at your lunch table does, commons go for about a dollar each. You have ten minutes before the bell.

What you would give up: 3 commons x \$1.00 \$3.00

COULD GO RIGHT - the card is the real rare, worth about \$6.00: \$6.00 - \$3.00 +\$3.00

COULD GO WRONG - it is a reprint worth about \$1.00: \$1.00 - \$3.00 -\$2.00

COST TO FIND OUT - checking the set symbol and the card number 10 minutes, \$0.00

Can you afford the worst case? Yes - \$2.00

Can you do this again next week if it goes badly? Yes

→ The most valuable number on this list is the free one. Ten minutes of checking costs nothing and removes most of the guessing. Almost every bad deal a person makes could have been avoided by a check that was available, cheap, and skipped because somebody was in a hurry.

 Some things are not risks - they are traps. A trap is a risk where the worst case is something you cannot pay for or cannot undo. There is no clever way to size a trap. You walk away, and you tell a grown-up you trust about it.

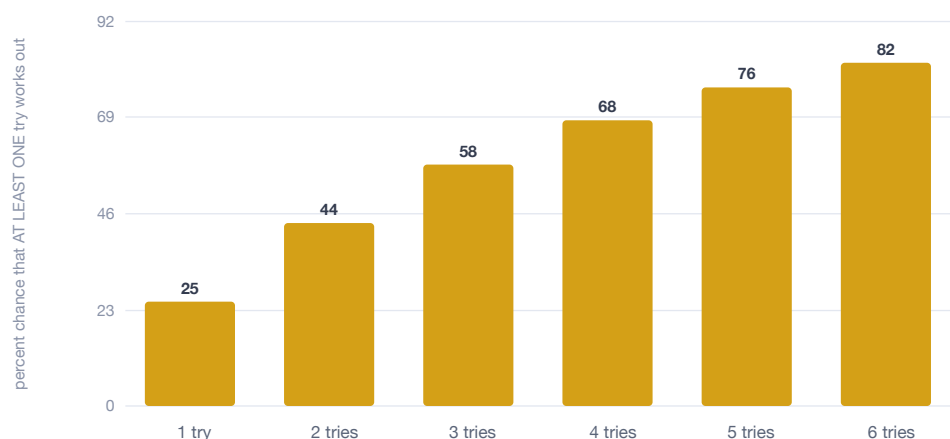
A Week of Practice: Seven Days of Getting Honest

Knowing about risk and being good at risk are two different things, and only one of them comes from a workbook. The skill underneath all of it is calibration - a fancy word for knowing how right you usually are. Most people, including most adults, are far more confident than they are correct, and they never find out because they never write anything down.

So here is the week. Every morning, write down one thing you think will happen that day. Make it specific enough to be graded: not 'today will be good' but 'I will get at least 8 out of 10 on the spelling quiz' or 'it will rain before dinner.' At the end of the day, mark it right or wrong. No arguing with yourself. That is it - about two minutes a day.

On day seven, count. If you got 4 out of 7, you are right about 57 percent of the time on the kinds of things you chose - and now you know that, which is more than most people know about themselves. If you got 7 out of 7, your predictions were too easy; make harder ones next week. And if you got 0 out of 7, that is genuinely useful information too, and honestly kind of funny. The point is never the score. The point is that you now have evidence

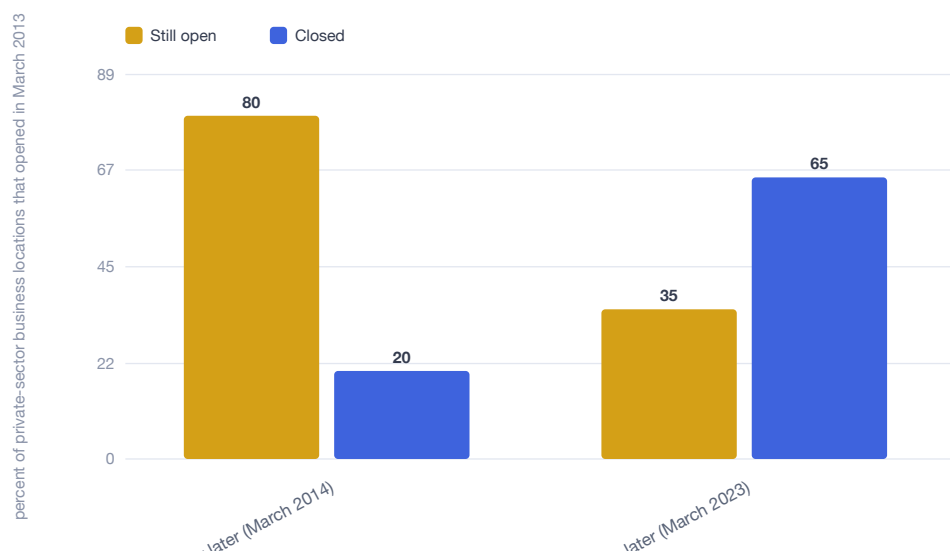
One Big Try, or Several Small Ones? (This Is Arithmetic, Not a Prediction)



Read this as a math exercise, not as a forecast about anything real. Start with a made-up rule: each try has a 1-in-4 chance of working, and the tries do not affect each other - like rolling a die or flipping coins. The chance that ALL of them miss is $(3/4)$ multiplied by itself once per try, so the chance at least one works is 1 minus that. One try: $1 - 3/4 = 0.250$, or 25.0%. Four tries: $1 - (3/4 \times 3/4 \times 3/4 \times 3/4) = 1 - 0.3164 = 0.6836$, or 68.4%. Six tries: $1 - 0.1780 = 0.8220$, or 82.2%. Check every bar on a calculator - that is the point of this chart. Two honest limits: real life almost never hands you neat 1-in-4 odds, and real tries often fail together for the same reason (the wagon problem on the eggs page). Nothing here is a claim about money, investments, or what will happen to you. Source: arithmetic worked out and re-checked for this workbook; formula $1 - (3/4)^n$.

Source: Arithmetic illustration computed for this workbook - chance that at least one of n independent tries succeeds when each try has probability $1/4$, using $1 - (3/4)^n$; values 25.0%, 43.8%, 57.8%, 68.4%, 76.3%, 82.2% for $n = 1$ through 6 (recomputed and verified; this is a math example, not data about real outcomes) - CashQuest Kids (2026) - <https://cashquestkids.com>

Out of 100 New U.S. Businesses That Opened in 2013, How Many Were Still Open Later?



The U.S. government counts this every year. Of the private-sector business locations that opened in March 2013, about 4 out of 5 were still open one year later - the survival rate fell 20.4 percentage points in that first year, the biggest single-year drop of the whole decade. Ten years later, in March 2023, 34.7 percent were still operating. Which also means roughly 2 out of 3 had closed. The kind of business mattered: among businesses born in 2013, agriculture, forestry, fishing and hunting had the highest 10-year survival at 50.5 percent, followed by utilities at 45.7 percent and manufacturing at 43.6 percent; mining, quarrying, and oil and gas extraction was lowest at 24.5 percent. Here is the grown-up point, said plainly: the people who started those businesses were not foolish. Starting

The Rainy Saturday

IVY

Forty cups today. I already spent eight dollars on supplies.

A driveway on a bright Saturday morning. Ivy, about eleven, tapes a hand-lettered LEMONADE 75 CENTS sign to a folding table stacked with cups. A crumpled receipt for 8 dollars sticks out of her pocket. IVY, the investor guide in a green jacket, leans on the mailbox holding a notebook. SHIELD, the insurance guide in a navy coat, checks the sky over the rooftops.

IVY

Good. Now say out loud what could go wrong.

1. Before anything happens, count what you already spent.

IVY

It's raining. I sold twelve cups. Only nine dollars.

Same driveway, two hours later, everything gray and dripping. The sign has gone soft and curled at the corners. Ivy sits under a too-small umbrella with a mostly full pitcher, counting damp dollar bills into her palm. Twelve empty cups are stacked beside her. SHIELD crouches at her eye level, calm, not the least bit worried.

SHIELD

You risked eight. You still have one. You survived.

2. The weather did not read the plan. It never does.

IVY

Write it down. Right, wrong, and the cost to find out.

The garage that evening, warm light, rain still ticking on the roof. Ivy has flipped a cardboard box flat and ruled it into three columns with marker: COULD GO RIGHT, COULD GO WRONG, COST TO FIND OUT. She is filling in the third column. IVY sits cross-legged on an overturned crate, pointing at the page instead of talking over it.

IVY

Cost to find out was eight dollars. I can repeat that.

3. Three columns. The third one is the only one you know for sure.

SHIELD

Small tries you can repeat beat one big try you cannot.

The next Saturday, sunny. Four small setups share the sidewalk: lemonade, a dog-walking flyer taped to a post, a stack of friendship bracelets, and a hand-painted sign for car washing. Each has a small price card. Ivy stands in the middle with her cardboard chart under one arm, grinning. IVY and SHIELD watch from the porch steps, coffee and cocoa in hand.

IVY

Next week: four two-dollar ideas. Rain can only take one.

4. Four small tries, spread out on purpose - and a wagon check.

How well did it stick?

☐ **Someone says 'risk means something bad might happen.' What is missing from that definition?**

The good half. Risk means you do not know the ending yet - so it covers the whole range of what could happen, not only the bad part. The lemonade stand ran from -\$8 to +\$22, and both ends were the risk. Something with no bad outcome usually has no good one either, because a certainty is a thing everybody already knows will work.

☐ **You have \$8 to test business ideas. Why is spending \$2 on four ideas usually stronger than \$8 on one?**

Arithmetic. If each idea has a 1-in-4 chance and they do not affect each other, one try gives you a 25% chance. Four tries: the chance all four miss is $(3/4) \times (3/4) \times (3/4) \times (3/4) = 31.6\%$, so the chance at least one works is 68.4%. Same money, plus you learn four things instead of one. The catch: it only works this cleanly if the tries can fail separately.

☐ **You split 12 eggs into four baskets of three, then load all four baskets into one wagon. Have you diversified?**

No. If the wagon tips, all 12 eggs are gone - exactly as bad as one basket. Spreading things out only helps when the pieces can fail separately. Four baskets in one wagon is one risk in four containers. Always ask what single event could take everything at once.

Check yourself, continued

☐ **What are the three questions to answer before you take any risk, and which one can you actually know today?**

What could go right, what could go wrong, and what does it cost to find out. Only the third one is knowable today - the other two have not happened yet. So decide on the cost of finding out: if you can afford it and repeat it, the risk is sized right. Then check what you would still have if it fails.

☐ **A kid offers you a trade and says you have to decide right now, before the bell. What should you do?**

Say no, or say 'tomorrow.' Being rushed is a warning sign, not enthusiasm - hurry exists to stop you from checking. A real opportunity survives one night of sleep and one conversation with an adult you trust. In the card example, ten free minutes of checking the set symbol was the most valuable move available, and hurrying is exactly what takes it away from you.

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WORDS TO KNOW

Risk

Not knowing the ending before you start, so more than one thing could happen. It includes the good endings too - risk is the whole range, not just the bad part.

Downside

The worst realistic outcome and what it costs. The only downside that really matters is the biggest one: if you cannot pay for that one, the size of the upside does not save you.

Reward

The good ending you were hoping for: money, a skill, a spot on the team, a thing you built. Rewards get advertised loudly; their costs stay quiet, so you have to add those up yourself.

Diversify

Spread things out so one accident cannot take everything - 12 eggs in four baskets instead of one. Only counts if the pieces can fail separately. Four baskets in one wagon is still one risk.

Certainty

Something you can count on, like \$5 for washing the car. Comfortable and useful - and usually smaller, because nobody pays extra for the thing everyone already knows will work.

Cost to find out

The money, time, and given-up-things it takes just to learn how something turns out. It is the one number you can know for certain before you decide, which makes it the number you decide on.

Odds

How often something happens out of all the times you try, written as a fraction or a percent. A 1-in-4 chance means about 1 out of every 4 tries - not one guaranteed win in every group of four.

Insurance

Paying a small, certain amount now so that one rare disaster cannot wreck you later. It does not make bad things less likely - it makes them affordable when they happen.

Upside

The best realistic outcome and what it is worth. On the lemonade stand, the upside was \$22 on a sunny day - the number you write at the bottom of the COULD GO RIGHT column.

Emergency fund

Money set aside on purpose and left alone, so a surprise costs you money instead of costing you your whole plan. It is what lets a person take sensible risks without gambling with the rent.

SOURCES & MATERIALS USED

- CashQuest Kids, Pillars EP02: Risk vs Reward (2026) - base material for all sections, the IVY and SHIELD mentor characters, the three-question decision method, and every worked example in this workbook (lemonade stand, dog-walking flyers, eight dollars four ways, twelve eggs, team tryout, trading-card trade, and the seven-day prediction ledger). All worked examples are illustrative and use invented but internally consistent numbers a reader can re-check by hand. — CashQuest Kids (2026). <https://cashquestkids.com>
- Arithmetic illustration computed for this workbook - chance that at least one of n independent tries succeeds when each has probability $1/4$, computed as $1 - (3/4)^n$: 25.0% ($n=1$), 43.8% ($n=2$), 57.8% ($n=3$), 68.4% ($n=4$), 76.3% ($n=5$), 82.2% ($n=6$). Recomputed and verified. Labeled throughout as a math exercise, not a forecast, and explicitly not a claim about money, investing, or any real-world outcome. — CashQuest Kids (2026). <https://cashquestkids.com>
- The Economics Daily: '34.7 percent of business establishments born in 2013 were still operating in 2023' (2024), from the Business Employment Dynamics program - 34.7% of March 2013 establishment births still operating in March 2023; the survival rate fell 20.4 percentage points in the first year (about 79.6% still open in March 2014), the largest single-year decline of the period; 10-year survival by industry: agriculture, forestry, fishing and hunting 50.5%, utilities 45.7%, manufacturing 43.6%, mining/quarrying/oil and gas extraction 24.5%. (verify before publish - confirmed from BLS-published article text and headline via search retrieval; two direct fetch attempts of [bls.gov](https://www.bls.gov) returned HTTP 403 Forbidden) — U.S. Bureau of Labor Statistics (2024). <https://www.bls.gov/opub/ted/2024/34-7-percent-of-business-establishments-born-in-2013-were-still-operating-in-2023.htm>
- Business Employment Dynamics - Establishment Age and Survival Data, including Table 7 (Survival of private sector establishments by opening year), the underlying series behind the survival figures used in this workbook. Primary table for anyone re-checking the numbers before publication. — U.S. Bureau of Labor Statistics (2024). <https://www.bls.gov/bdm/bdimage.htm>
- CashQuest Kids legal disclaimer (educational use only) - this workbook is general financial education for families, not financial, investment, tax, legal, or insurance advice. Nothing in it recommends that any child invest, trade, or gamble, and no outcome described here is promised or guaranteed. Examples are illustrative; individual situations differ. — CashQuest Kids and FlexLifeFI (2026). <https://cashquestkids.com>