

# Informed Consent

**Title:** Math and Decision Tasks  
**Sponsor:** National Science Foundation  
**Researcher(s):** Dr. Ellen Peters, University of Oregon  
**Researcher Contact Info:** caide@uoregon.edu

You are being asked to participate in a research study. The box below highlights key information about this research for you to consider when making a decision whether or not to participate. Carefully consider this information and the more detailed information provided below the box. Please ask questions about any of the information you do not understand before you decide whether to participate.

Key Information for You to Consider

- **Voluntary Consent.** You are being asked to volunteer for a research study. It is up to you whether you choose to participate or not. There will be no penalty or loss of benefits to which you are otherwise entitled if you choose not to participate or discontinue participation.
- **Purpose.** The purpose of this research is to look at different factors that affect how people make decisions. We hope to gain a better understanding of how people use information when making a decision.
- **Duration.** The present study is expected to take approximately 30 minutes.
- **Procedures and Activities.** You will be asked to complete a series of tasks.
- **Risks.** There are no foreseeable risks or discomforts associated with this research.
- **Benefits.** Although there are no immediate benefits to you to participate beyond payment, we hope the research conducted in this study will contribute to our understanding of how individuals make judgments and decisions.
- **Alternatives.** Participation is voluntary and the only alternative is to not participate.

**What happens if I agree to participate in this research?**  
For today’s study you will be asked to complete several tasks that involve making judgments and decisions. This study will examine different factors that affect how people make decisions. We hope to gain a better understanding of how people use information when

making a decision. These tasks may take up to 30 minutes to complete. Specifically, you will be asked to complete a few judgments and decisions then complete several word problems.

**What are the risks if I participate in this research?**

The risks of today's study do not exceed that associated with daily life. Risks of loss of confidentiality will be minimized.

**What happens to the information collected for this research?**

Information collected for this research will be used to conduct research studies, write research papers for academic journals, and to create presentations of this research. No identifiable participant information will be used in any of these steps of the research process.

**How will my privacy and data confidentiality be protected?**

We will take measures to protect your privacy including Your data will not be associated with your name or with any other identifiable information. After you are paid, your MTurk ID will be deleted from the dataset, and we will never share your MTurk ID. The only people with access to your data will be our research personnel. All data will be held and protected either on our own computers or by Qualtrics (a survey research company) using their online security features. Although every effort to protect confidentiality will be made, no guarantee of internet survey security can be given as, although unlikely, transmissions can be intercepted, and IP addresses can be identified. Absolute confidentiality can never be guaranteed. Also, the results of this research study may be presented at meetings or in publications. Your identity will not be provided in those presentations. Despite taking steps to protect your privacy, we can never fully guarantee your privacy will be protected.

We will take measures to protect the security of all your personal information including your personal MTurk ID number. Despite these precautions to protect the confidentiality of your information, we can never fully guarantee confidentiality of all study information.

Individuals and organization that conduct or monitor this research may be permitted access to and inspect the research records. This may include access to your private information. These individuals and organizations include: Office for Human Research Protections or other federal, state, or international regulatory agencies; The University of Oregon Institutional Review Board or Office of Responsible Research Practices; The sponsor, if any, or agency (including the National Science Foundation) supporting the study.

**What if I want to stop participating in this research?**

Taking part in this research study is your decision. Your participation in this study is voluntary. You do not have to take part in this study, but if you do, you can stop at any time. You have the right to choose not to participate in any study activity or completely withdraw from continued participation at any point in this study without penalty or loss of benefits to which you are otherwise entitled. Your decision whether or not to participate will not affect your relationship with the researchers or the University of Oregon.

If you experience harm because of the project, you can ask the State of Oregon to pay you. If you have been harmed, there are two University representatives you need to contact. Here are their addresses and phone numbers:

1226 University of Oregon  
Eugene, OR 97403-1226  
(541) 346-3082

5237 University of Oregon  
Eugene, OR 97403-5237  
(541) 346-2510

A law called the Oregon Tort Claims Act may limit the amount of money you can receive from the State of Oregon if you are harmed.

**Will I be compensated for participating in this research?**

**As compensation, you will receive \$4.00 through Mechanical Turk for participating in this study.**

**Who can answer my questions about this research?**

If you have questions, concerns, or have experienced a research related injury, contact the research team at:

**Dr. Ellen Peters**  
**541-346-3828**  
**caide@uoregon.edu**

An Institutional Review Board ("IRB") is overseeing this research. An IRB is a group of people who perform independent review of research studies to ensure the rights and welfare of participants are protected. UO Research Compliance Services is the office that supports the IRB. If you have questions about your rights or wish to speak with someone other than the research team, you may contact:

**Research Compliance Services**  
5237 University of Oregon  
Eugene, OR 97403-5237  
(541) 346-2510

## **CONSENT**

I have read (or someone has read to me) this form and I am aware that I am being asked to participate in a research study. I have had the opportunity to ask questions and have had them answered to my satisfaction. By clicking the "Consent" button I voluntarily agree to participate in this study. I am not giving up any legal rights by consenting to participate.

Consent

## **Framing-Correct**

You will be presented with the final exam scores of 5 psychology students for three different classes. Each student took a 200-level course, a 300-level course, and a 400-level course.

We will let you know the final exam grade each student got in each class. Please rate each students performance across the three classes on a scale from -3 (very bad) to +3 (very good).

**Mike**

Course Level	Final Exam Performance
200-Level	78% Correct
300-Level	54% Correct
400-Level	67% Correct

How would you rate Mike's performance across these three exams?

-3 (Very Bad)      -2      -1      0      +1      +2      +3 (Very Good)

**Molly**

Course Level	Final Exam Performance
200-Level	85% Correct
300-Level	82% Correct
400-Level	95% Correct

How would you rate Molly's performance across these three exams?

-3 (Very Bad)      -2      -1      0      +1      +2      +3 (Very Good)

**Jesse**

Course Level	Final Exam Performance
200-Level	93% Correct
300-Level	67% Correct
400-Level	89% Correct

How would you rate Jesse's performance across these three exams?

-3 (Very Bad)      -2      -1      0      +1      +2      +3 (Very Good)

**Bernie**

Course Level	Final Exam Performance
200-Level	76% Correct
300-Level	77% Correct
400-Level	84% Correct

How would you rate Bernie's performance across these three exams?

-3 (Very Bad)      -2      -1      0      +1      +2      +3 (Very Good)

### Linda

Course Level	Final Exam Performance
200-Level	65% Correct
300-Level	93% Correct
400-Level	77% Correct

How would you rate Linda's performance across these three exams?

-3 (Very Bad)      -2      -1      0      +1      +2      +3 (Very Good)

### Framing-Incorrect

You will be presented with the final exam scores of 5 psychology students for three different classes. Each student took a 200-level course, a 300-level course, and a 400-level course. We will let you know the final exam grade each student got in each class. Please rate each students performance across the three classes on a scale from -3 (very bad) to +3 (very good).

### Mike

Course Level	Final Exam Performance
200-Level	22% Incorrect
300-Level	46% Incorrect
400-Level	33% Incorrect

How would you rate Mike's performance across these three exams?

-3 (Very Bad)      -2      -1      0      +1      +2      +3 (Very Good)

**Molly**

Course Level	Final Exam Performance
200-Level	15% Incorrect
300-Level	18% Incorrect
400-Level	5% Incorrect

How would you rate Molly's performance across these three exams?

-3 (Very Bad)      -2      -1      0      +1      +2      +3 (Very Good)

**Jesse**

Course Level	Final Exam Performance
200-Level	7% Incorrect
300-Level	33% Incorrect
400-Level	11% Incorrect

How would you rate Jesse's performance across these three exams?

-3 (Very Bad)      -2      -1      0      +1      +2      +3 (Very Good)

**Bernie**

Course Level	Final Exam Performance
200-Level	24% Incorrect
300-Level	23% Incorrect
400-Level	16% Incorrect

How would you rate Bernie's performance across these three exams?

-3 (Very Bad)      -2      -1      0      +1      +2      +3 (Very Good)

**Linda**

Course Level	Final Exam Performance
200-Level	35% Incorrect

300-Level	7% Incorrect
400-Level	23% Incorrect

How would you rate Linda's performance across these three exams?

-3 (Very Bad)

-2

-1

0

+1

+2

+3 (Very Good)

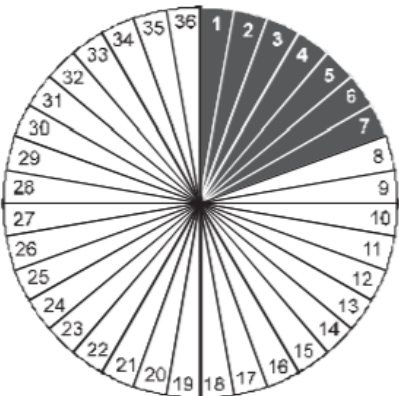
### Bets Task

We would like you to rate how attractive the prospect of playing the following bet is to you:

**7/36 to win \$9.00**

This means that there are 7 chances out of 36 that you will win the bet and receive **\$9.00** and 29 chances out of 36 that you will win nothing.

Visualize a roulette wheel on the left with 36 numbers along the circumference. If a ball lands on any of the 7 numbers between 1 and 7 inclusive, you win **\$9.00**. If it lands on numbers 8–36, you win nothing.



Indicate your opinion of this bet’s attractiveness by selecting one number on the rating scale below:

*There is no right or wrong answer, we are interested only in your opinion about the **attractiveness** of playing this bet.*

Not at all attractive

Extremely attractive

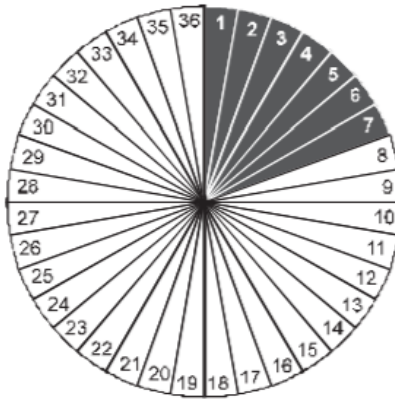
01234567891011121314151617181920

We would like you to rate how attractive the prospect of playing the following bet is to you:

**7/36 to win \$9.00 and 29/36 to lose 5¢**

This means that there are 7 chances out of 36 that you will win the bet and receive **\$9.00** and 29 chances out of 36 that you will lose **5¢**.

Visualize a roulette wheel below with 36 numbers along the circumference. If a ball lands on any of the 7 numbers between 1 and 7 inclusive, you win **\$9.00**. If it lands on numbers 8–36, you lose **5¢**.



Indicate your opinion of this bet’s attractiveness by selecting one number on the rating scale below:

There is no right or wrong answer, we are interested only in your opinion about the **attractiveness** of playing this bet.



## Everyday Decisions-BNT

Imagine there is a 30% chance of rain tomorrow. Please indicate which of the following alternatives is the most appropriate interpretation of the forecast?

- It will rain tomorrow in 30% of the region
- It will rain tomorrow for 30% of the time
- It will rain on 30% of the days like tomorrow

Imagine that you see the following advertisement for a new toothpaste:

Zendil- 50% reduction in concurrence of gum inflammation. Zendil is a new toothpaste to prevent gum inflammation. Half as many people who used Zendil developed gum inflammation when compared to people using a different toothpaste.

Which one of the following would best help you evaluate how much a person could benefit from using Zendil?

- The risk of gum inflammation for people who do not use Zendil
- The risk of gum inflammation for people who use a different brand of toothpaste for the same purpose



How many people there were in the group who used a different toothpaste

How old the people who participated in the study were

How much a weekly supply of Zendil costs

Whether Zendil has been recommended by a dentists association for this use

## Big 5

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please indicate how much you agree or disagree with each statement.

I am someone who...

	Disagree strongly	Disagree a little	Neutral; no opinion	Agree a little	Agree strongly
Has little creativity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is reliable, can always be counted on.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is full of energy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has little interest in abstract ideas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is outgoing, sociable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keeps things neat and tidy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assumes the best about people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is fascinated by art, music, or literature.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Disagree strongly	Disagree a little	Neutral; no opinion	Agree a little	Agree strongly
Is original, comes up with new ideas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is less active than other people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is complex, a deep thinker.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has few artistic interests.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tends to be quiet.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tends to be disorganized.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prefers to have others take charge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Can be cold and uncaring.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Disagree strongly	Disagree a little	Neutral; no opinion	Agree a little	Agree strongly
Is compassionate, has a soft heart.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is dominant, acts as a leader.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is emotionally stable, not easily upset.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has difficulty getting started on tasks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Can be somewhat careless.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tends to feel depressed, blue.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is relaxed, handles stress well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is sometimes rude to others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Disagree strongly	Disagree a little	Neutral; no opinion	Agree a little	Agree strongly
Is persistent, works until the task is finished.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is respectful, treats others with respect.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is temperamental, gets emotional easily.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feels secure, comfortable with self.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tends to find fault with others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Worries a lot.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## SNS

1. How good are you at working with fractions?

Not at all good	2	3	4	5	Extremely good
1					6

2. How good are you at working with percentages?

Not at all good	2	3	4	5	Extremely good
1					6

3. How good are you at calculating a 15% tip?

Not at all good	2	3	4	5	Extremely good
1					6

4. How good are you at figuring out how much a shirt will cost if it's 25% off?

Not at all good	2	3	4	5	Extremely good
1					6

5. When reading the newspaper, how helpful do you find tables and graphs that are parts of a story?

Not at all helpful	2	3	4	5	Extremely helpful
1					6

6. When people tell you the chance of something happening, do you prefer that they use **words** ("it rarely happens") or **numbers** ("there's a 1% chance")?

Always prefer words	2	3	4	5	Always prefer numbers
1					6

7. When you hear a weather forecast, do you prefer predictions using **percentages** (e.g., "there will be a 20% chance of rain today") or predictions using only **words** (e.g., "there is a small chance of rain today")?

Always prefer words	2	3	4	5	Always prefer percentages
1					6

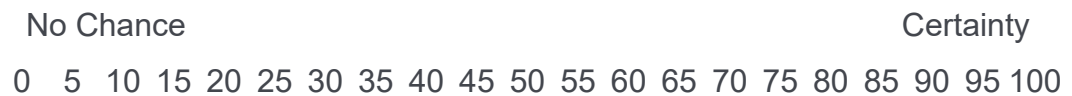
8. How **often** do you find numerical information to be useful?

Never	2	3	4	5	Very Often
1					6

## Attention Check

Each of these questions asks for your best guess at the chance that something will happen in the future. They use the "probability" scale that you see below. If you think that something has no chance of happening, place the slider to indicate that it has a 0% chance. If you think that something is certain to happen, place the slider to indicate that it has a 100% chance.

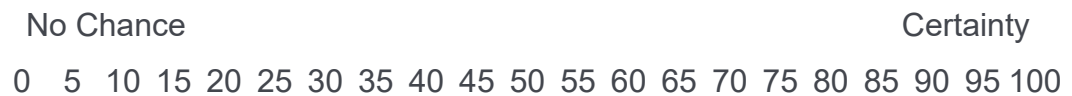
To show that you understand, **please place the slider that indicates an 85% chance:**



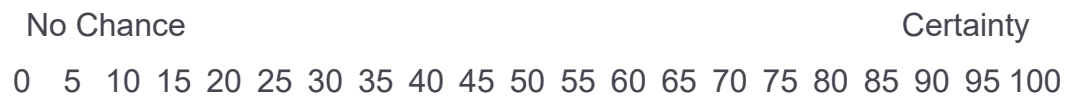
## Risk Consistency 1 Year

The following questions ask about events that may happen some time during *the next year*.

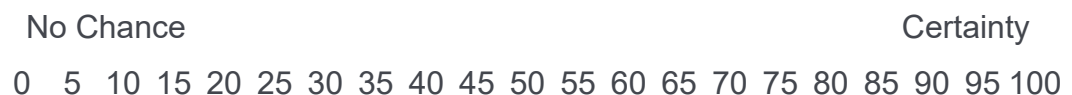
What is the probability that you will die (from any cause -- crime, illness, accident, and so on) during the next year?



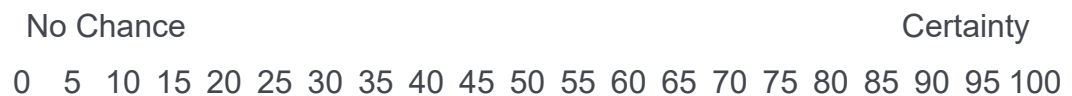
What is the probability that someone will steal something from you during the next year?



What is the probability that you will die in a terrorist attack during the next year?



What is the probability that someone will break into your home and steal something from you during the next year?



## Risk Consistency 5 Year

The following questions ask about events that may happen some time during *the next 5 years*.

What is the probability that you will die (from any cause -- crime, illness, accident, and so on) during the next 5 years?

No Chance Certainty  
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

What is the probability that someone will steal something from you during the next 5 years?

No Chance Certainty  
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

What is the probability that you will die in a terrorist attack during the next 5 years?

No Chance Certainty  
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

What is the probability that someone will break into your home and steal something from you during the next 5 years?

No Chance Certainty  
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

## Adptive NUM

Please complete the following problems. Please do not use a calculator or look up answers for any of these questions. We are interested in what *you* think.

Imagine that you have a five-sided die (the sides of which show 1, 2, 3, 4, 5), and we throw it 150 times. On average, out of these 150 throws how many times would this five-sided die show an odd number (1, 3, 5)?

throws

A medical study will either give people medicine A or medicine B. Each person has an equal chance to get medicine A or B. If there are 536 people in the study, about how many are expected to get medicine A?

people

If the probability of getting the common cold is 60% in 1 year, what is the probability of getting the common cold in 2 years?

%

If Person A's risk of getting a disease is 7% in twenty years, and Person B's risk is double that of A's, what is B's risk of getting the disease in twenty years?

% in twenty years

If the chance of getting a disease is 60 out of 300, this would be the same as having what percent chance of getting the disease?

%

If a class of 200 people includes 50 men, this would be the same as the class being what percent men?

%

In a lake 20% of fish are red. A red fish is poisonous with a probability of 20%. A fish that is not red is poisonous with a probability of 15%. What is the probability that a poisonous fish in the lake is red?

%

What is 74% of 100 people?

people

If 70% of basketball players on a college basketball team are over six feet tall and there are 20 players on the team, how many players on the team are shorter than six feet tall?

players

In a field containing 1000 squirrels, 40% of squirrels are striped and a striped squirrel is rabid with a probability of 20%, on average, how many squirrels are there in the field that are rabid and have stripes?

squirrels

The town of Jamesville has a pole that is red, blue, and green standing in the center of town. One-third of a pole is painted red, one-half of the pole is painted blue, and three feet of the pole is painted green. What is the height of the pole?

feet

In a box of cookies, 25% have chocolate chips, 25% have raisins, and 50% are plain. 40% of the chocolate chip and plain cookies are not fresh, and 30% of the raisin cookies are not fresh. What percentage of cookies that are not fresh are raisin cookies?

%

In a box of cookies, 25% have chocolate chips, 25% have raisins, and 50% are plain. 40% of the chocolate chip and plain cookies are not fresh, and 30% of the raisin cookies are not fresh. What percentage of cookies that are not fresh are raisin cookies?

%

Allenton College has a column that is green, white, and yellow (the school's colors) standing in front of the campus library. One-third of the column is painted green, one-half of the column is painted white, and four feet of the column is painted yellow. What is the height of the column?

feet

In a lake 20% of fish are red. A red fish is poisonous with a probability of 20%. A fish that is not red is poisonous with a probability of 15%. What is the probability that a poisonous fish in the lake is red?

%

## Experience

How is your experience of answering the math questions so far?



	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The questions are tedious	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The questions are stressful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The experience is positive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The experience is negative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## BNT-Adaptive

Please complete the following problems. Please do not use a calculator or look up answers for any of these questions. We are interested in what *you* think.

Out of 1,000 people in a small town 500 are members of a choir. Out of these 500 members in the choir 100 are men. Out of the 500 inhabitants that are not in the choir 300 are men. What is the probability that a randomly drawn man is a member of the choir?

%

Imagine we are throwing a five-sided die 50 times. On average, out of these 50 throws how many times would this five-sided die show an odd number (1, 3 or 5)

out of 50 throws

Imagine we are throwing a loaded die (6 sides). The probability that the die shows a 6 is twice as high as the probability of each of the other numbers. On average, out of these 70 throws how many times would the die show the number 6?

out of 70 throws

In a forest 20% of mushrooms are red, 50% brown and 30% white. A red mushroom is poisonous with a probability of 20%. A mushroom that is not red is poisonous with a probability of 5%. What is the probability that a poisonous mushroom in the forest is red?

%

**Weller**

Please complete the following problems. Please do not use a calculator or look up answers for any of these questions. We are interested in what *you* think.

Imagine that we roll a fair, six-sided die 1,000 times. Out of 1,000 rolls, how many times do you think the die would come up as an even number?

times

In the BIG BUCKS LOTTERY, the chances of winning a \$10.00 prize are 1%. What is your best guess about how many people would win a \$10.00 prize if 1,000 people each buy a single ticket from BIG BUCKS?

people

In the ACME PUBLISHING SWEEPSTAKES, the chance of winning a car is 1 in 1,000. What percent of tickets of ACME PUBLISHING SWEEPSTAKES win a car?

%

If the chance of getting a disease is 10%, how many people would be expected to get the disease out of 1000?

people out of 1000

If the chance of getting a disease is 20 out of 100, this would be the same as having a \_\_% chance of getting the disease.

%

Suppose you have a close friend who has a lump in her breast and must have a mammogram. Of 100 women like her, 10 of them actually have a malignant tumor and 90 of them do not. Of the 10 women who actually have a tumor, the mammogram indicates correctly that 9 of them have a tumor and indicates incorrectly that 1 of them does not have a tumor. Of the 90 women who do not have a tumor, the mammogram indicates correctly that 80 of them do not have a tumor and indicates incorrectly that 10 of them do have a tumor. The table below summarizes all of this information. Imagine that your friend tests positive (as if she had a tumor), what is the likelihood that she actually has a tumor?

	Tested Positive	Tested Negative	Totals
Actually has cancer	9	1	10
Does not have cancer	10	80	90
Totals	19	81	100

A bat and a ball cost \$1.10 in total. The bat costs \$1.00 more than the ball. How much does the ball cost?

 cents

In a lake, there is a patch of lilypads. Every day, the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half of the lake?

 days

#### 4-Item NUM

Please complete the following problems. Please do not use a calculator or look up answers for any of these questions. We are interested in what *you* think.

Suppose that you are buying a gallon of milk at the grocery store. There are two options for the same brand of milk: buying 4 quarts at \$2.50 per quart or buying 1 gallon for \$8.00. What is the cost per quart (1 gallon=4 quarts) of the better priced milk?

 \$  per quart

Imagine you are throwing a fair six-sided die (the sides of which show 1, 2, 3, 4, 5, 6) 120 times. On average, how many times would you expect this die to show a number less than 5 (1, 2, 3 or 4)?

out of 120 throws

Out of 300 fruits, 200 are apples and 100 are bananas. Out of the 200 apples, 90 are green. Out of the 100 bananas, 30 are green. What is the probability that a randomly picked green fruit will be an apple?

%

In a field 40% of snakes are striped, 30% brown and 30% black. A striped snake is poisonous with a probability of 10%. A snake that is not striped is poisonous with a probability of 20%. What is the probability that a poisonous snake in the field is striped?

%

Mood

How do you feel right now?

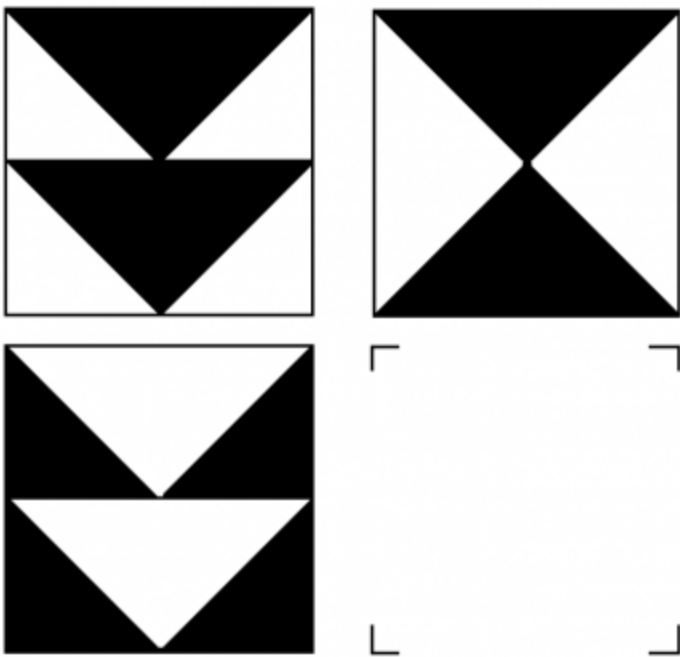
I feel...

	0-Not at all	1	2	3	4-Extremely
Good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Happy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unhappy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

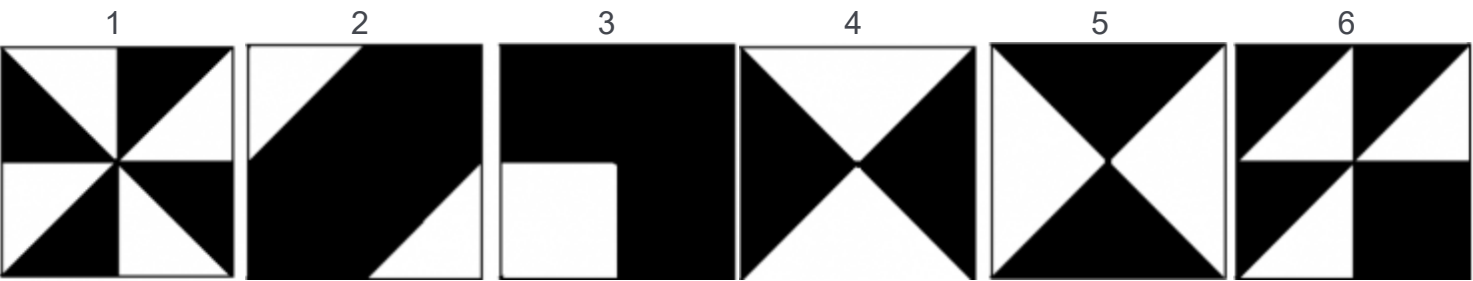
Ravens Intro

You will be presented with 10 patterns similar to the one showed below.  
Your task is to decide what piece (1-6) fits into the pattern. Only one piece fits into the pattern.

After you correctly complete this question.  
You will have 3 minutes to complete as many patterns as possible.  
If you do not know the right answer or are unsure, take a guess.



*This is a practice question. What piece fits the pattern?*

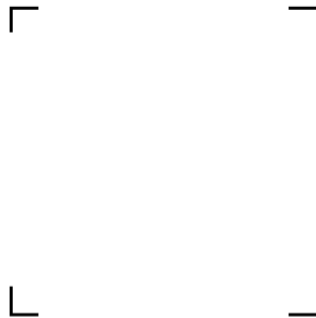
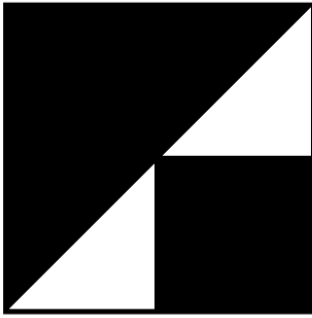
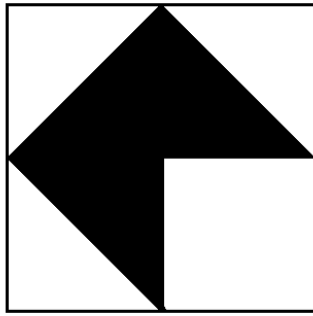
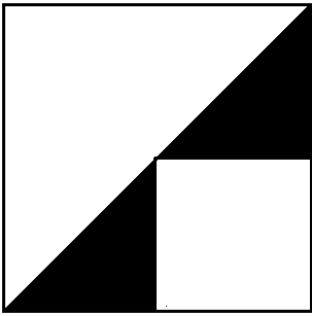


**Ravens Problems**

0 2 5 5

You have 3 minutes to complete as many patterns as possible on this page.  
If you do not know the right answer or are unsure, take a guess.

What piece (1-6) fits the pattern?



1



2



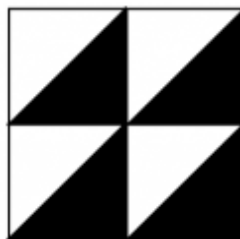
3



4



5

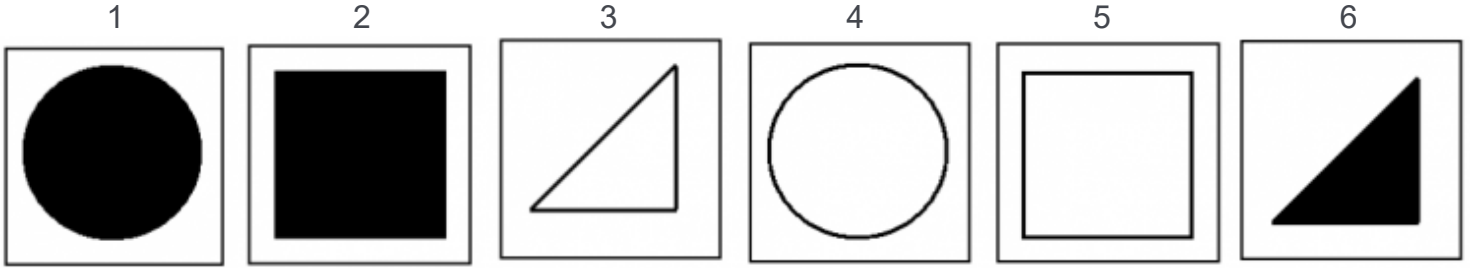


6

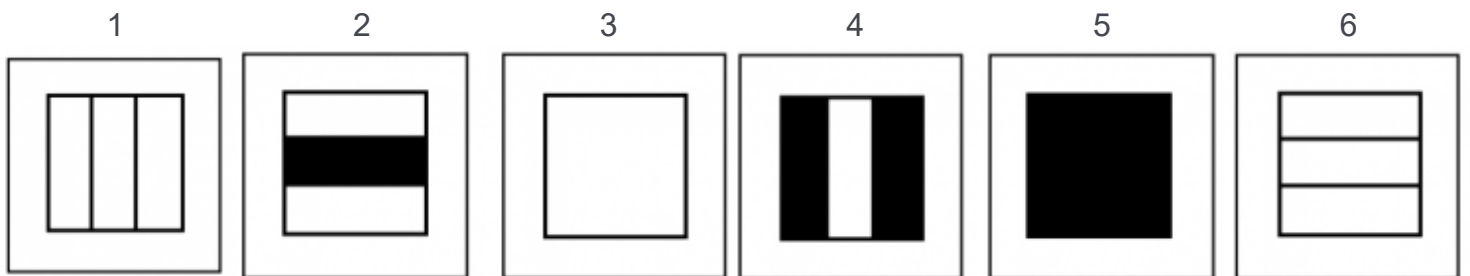
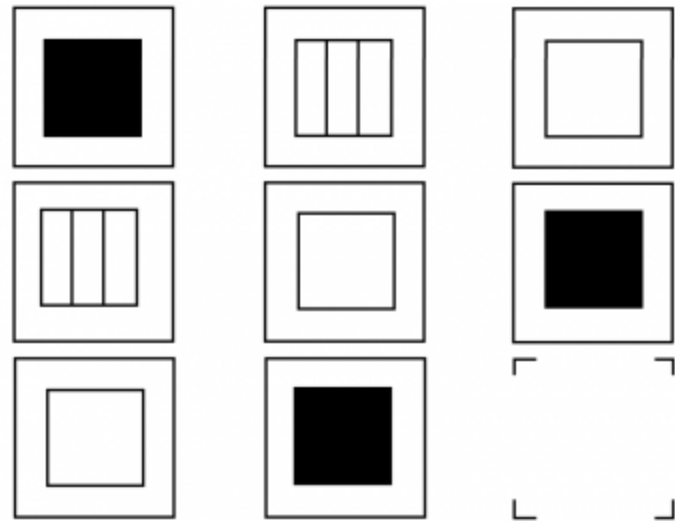


What piece (1-6) fits the pattern?

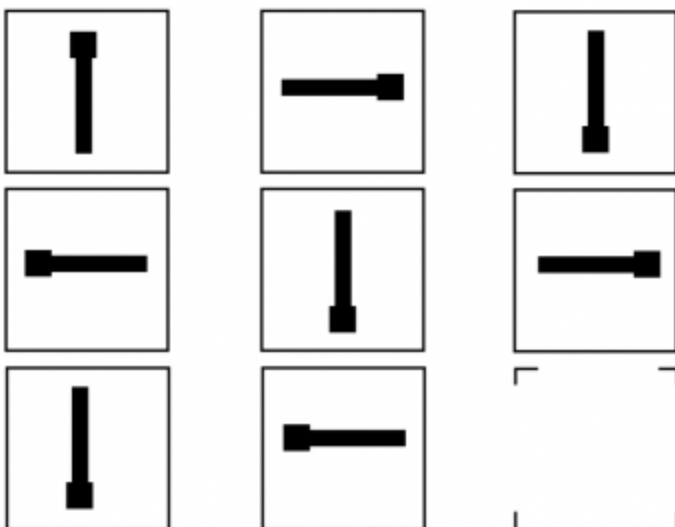


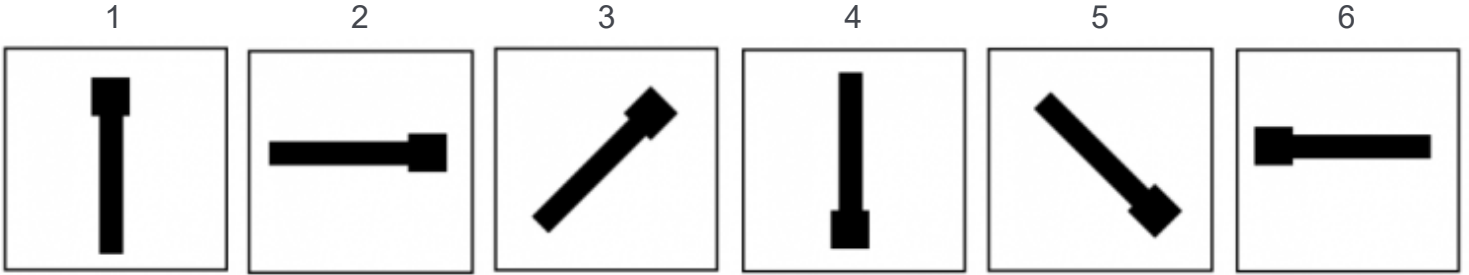


What piece (1-6) fits the pattern?

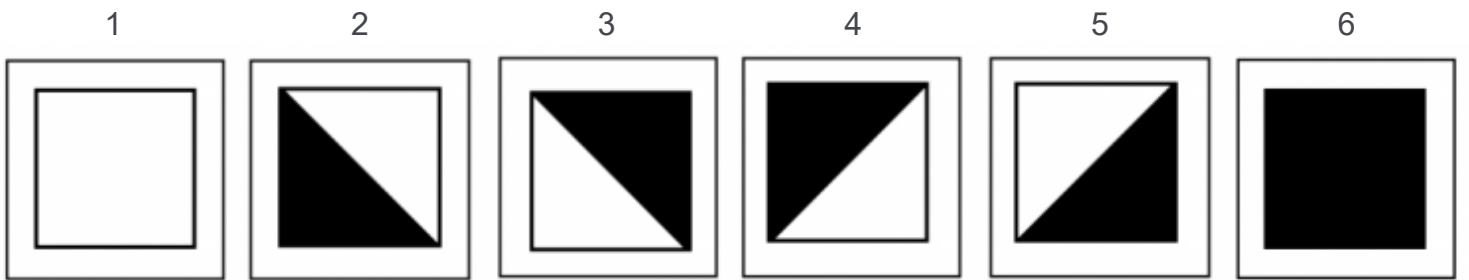
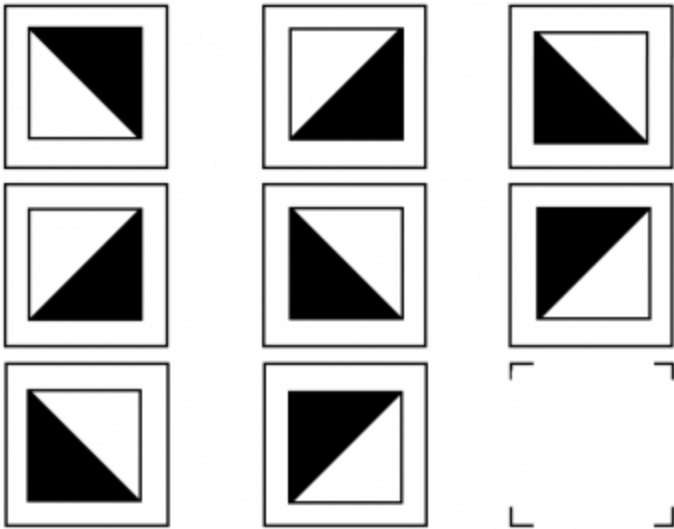


What piece (1-6) fits the pattern?

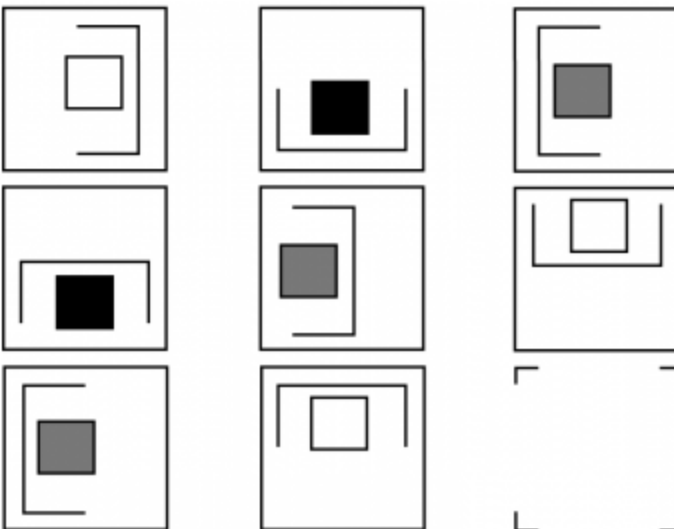




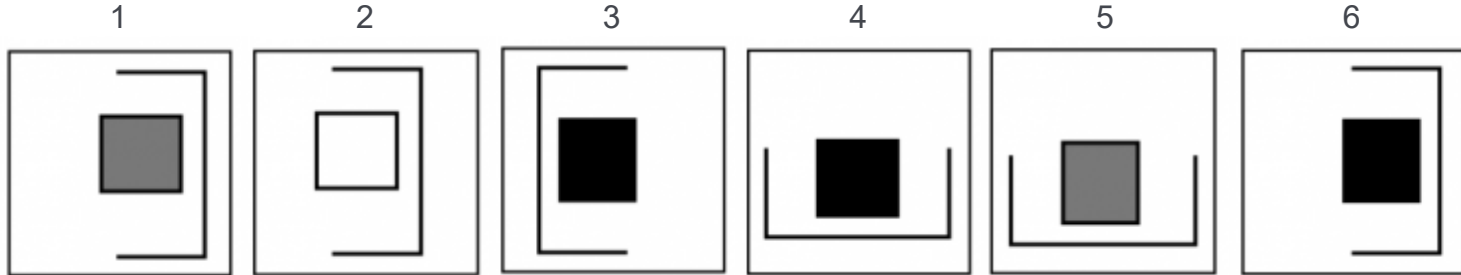
What piece (1-6) fits the pattern?



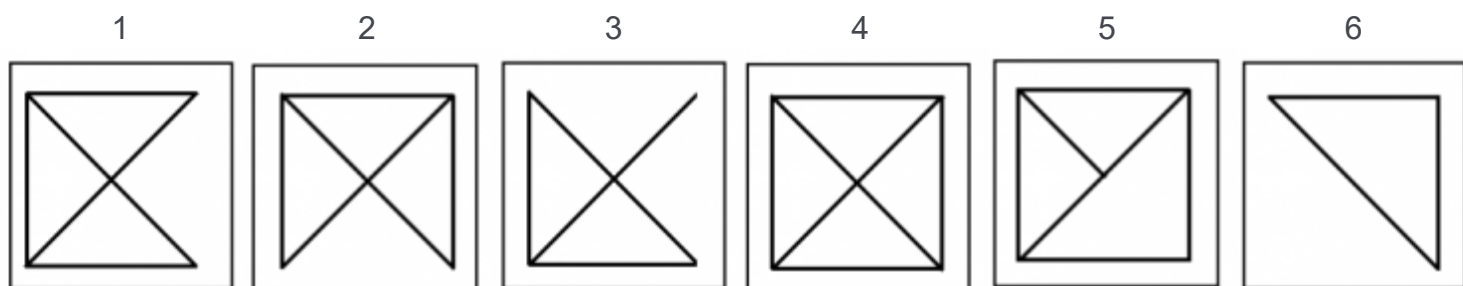
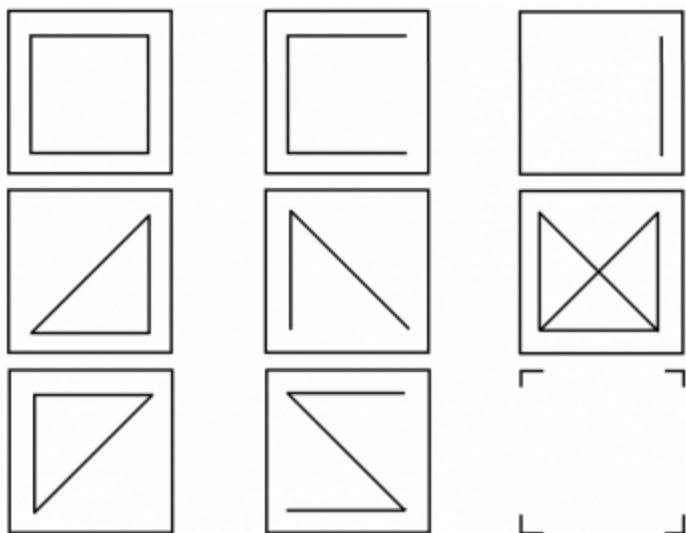
What piece (1-6) fits the pattern?



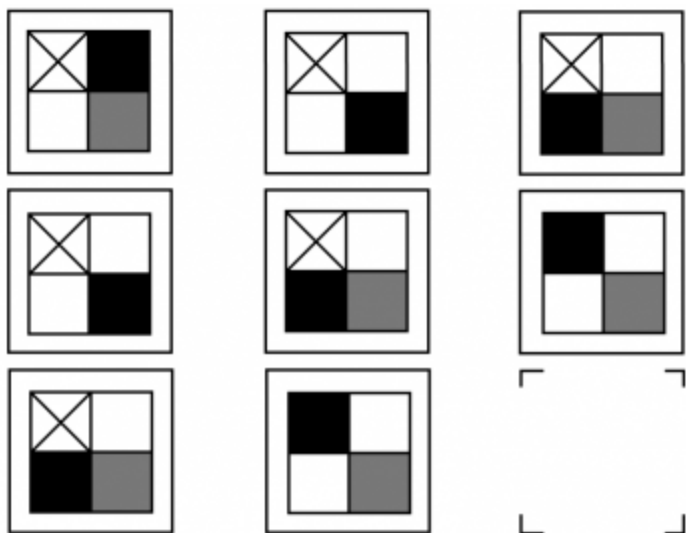


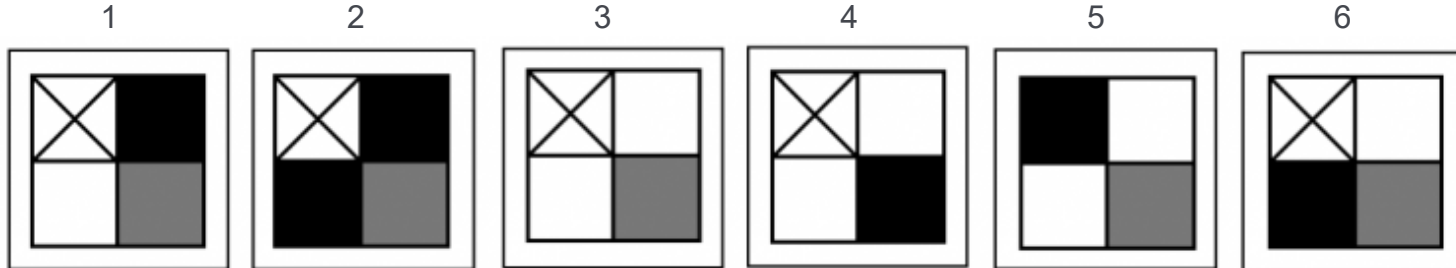


What piece (1-6) fits the pattern?

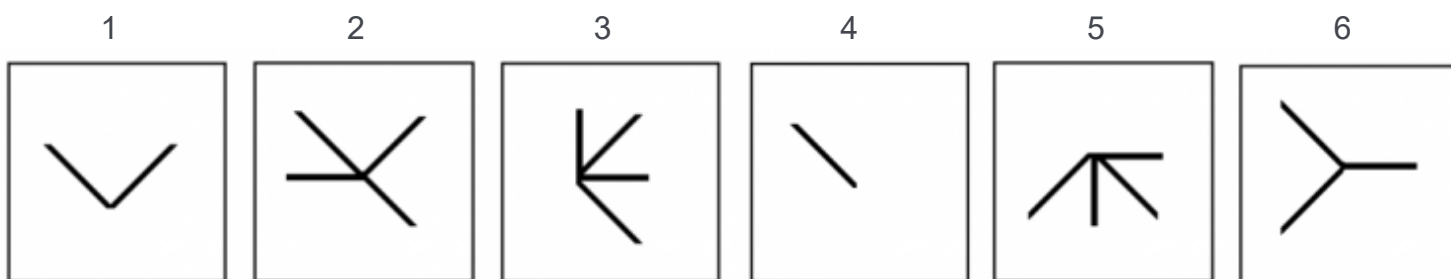
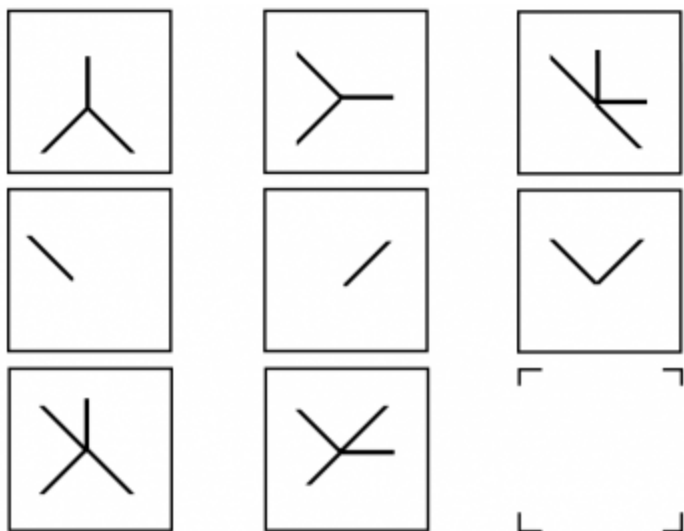


What piece (1-6) fits the pattern?

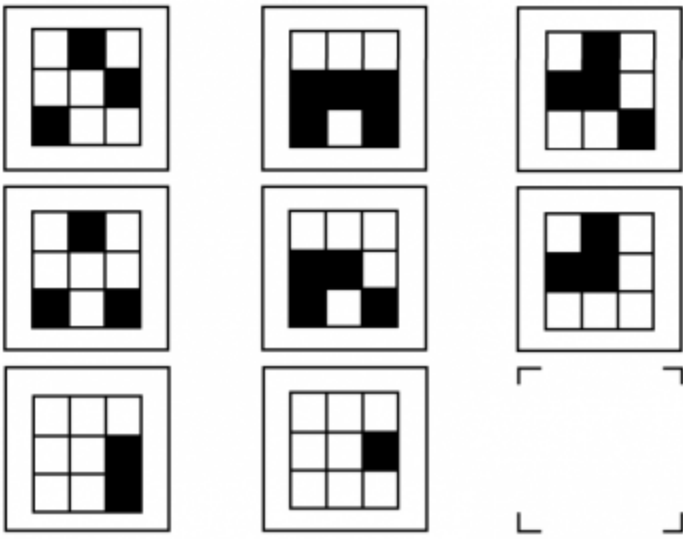




What piece (1-8) fits the pattern?



What piece (1-8) fits the pattern?



1

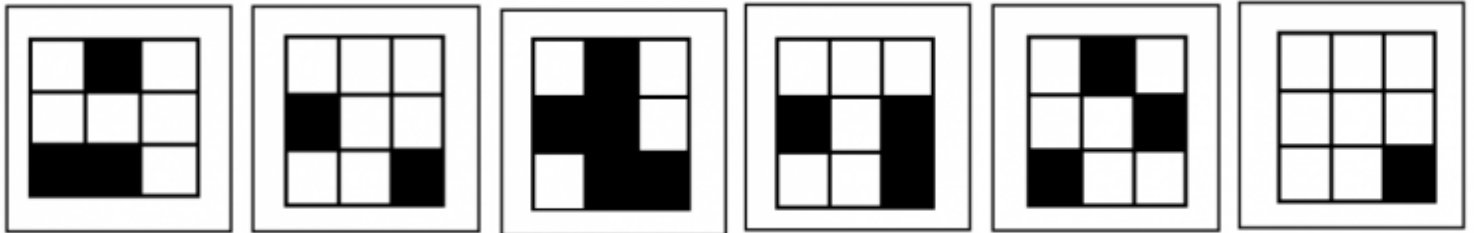
2

3

4

5

6



You will automatically be taken to the next page when 3 minutes has passed. If you have time left, please use this time to check your answers.

Thank you for answering these questions.  
We know that some of them are hard.

## Vocab

The next task is a test of your verbal ability. Please complete this task to the best of your ability.

This is a test of your knowledge of word meanings. Look at the sample below. One of the words has the same meaning or nearly the same meaning as the word directly above the list. Mark you answer by selecting it with the mouse.

Jovial

a - refreshing

b - scare

- c - thickset
- d - wise
- e - jolly <==
- 0 - skip

The answer to the sample item is e; therefore click the mouse on letter e.

Your score will be the number of items you answer correctly minus a fraction of the number marked incorrectly. Therefore, it will not be to your advantage to guess unless you are able to eliminate one or more of the answer choices as wrong. To skip an answer select 0 - skip as seen in the example.

**Please don't spend more than 10-15 seconds per question.**

Please don't spend more than 10-15 seconds per question. IF you are unsure of the answer, remember that an incorrect answer will deduct more points than a question left blank.

Yawl

Tropical storm

Foghorn

Carouse

Sailboat

Turn

Skip

Please don't spend more than 10-15 seconds per question. IF you are unsure of the answer, remember that an incorrect answer will deduct more points than a question left blank.

Perambulator

Coffeepot

Drunkard

Baby carriage

Liar

Camel

Skip

Please don't spend more than 10-15 seconds per question. IF you are unsure of the answer, remember that an incorrect answer will deduct more points than a question left blank.

Poignancy

Peignoir

Gloominess

Keeness

Gluttony

Barony

Skip

Please don't spend more than 10-15 seconds per question. IF you are unsure of the answer, remember that an incorrect answer will deduct more points than a question left blank.

Salaam

Salivation

Salmon

Salutation

Ransom

Brigand

Skip

Please don't spend more than 10-15 seconds per question. IF you are unsure of the answer, remember that an incorrect answer will deduct more points than a question left blank.

Compatible

Abridged

Congenial

Compelling

Related

Combined

Skip

Please don't spend more than 10-15 seconds per question. IF you are unsure of the answer, remember that an incorrect answer will deduct more points than a question left blank.

Bland

Disagreeable

Pale

Soothing

Empty

Musical

Skip

Please don't spend more than 10-15 seconds per question. IF you are unsure of the answer, remember that an incorrect answer will deduct more points than a question left blank.

Dreg

Pulled

Worthless leftover

Wooden pin

Wheel Spoke

Liquid

Skip

Please don't spend more than 10-15 seconds per question. IF you are unsure of the answer, remember that an incorrect answer will deduct more points than a question left blank.

Budget

Civil government

Capital punishment

Calendar

Bulletin

Financial plan

Skip

Please don't spend more than 10-15 seconds per question. IF you are unsure of the answer, remember that an incorrect answer will deduct more points than a question left blank.

Morbid

Moral

Attractive

Gruesome

Caustic

Mysterious

Skip

Please don't spend more than 10-15 seconds per question. IF you are unsure of the answer, remember that an incorrect answer will deduct more points than a question left blank.

Malignant

Deliberate

Superior

Delirious

Malicious

Fragrant

Skip

Please don't spend more than 10-15 seconds per question. If you are unsure of the answer, remember that an incorrect answer will deduct more points than a question left blank.

Canvass

Crack

Flower

Elect

White bird

Examine

Skip

Please don't spend more than 10-15 seconds per question. If you are unsure of the answer, remember that an incorrect answer will deduct more points than a question left blank.

Flabby

Lacking firmness

Giddy

Talkative

Noisy and boastful

Affluent

Skip

## Demographics

Age

With what gender do you identify?

Male

Female

 Other

Do not wish to answer

What is your household income (before taxes)?

Less than \$10,000

\$10,000 - \$19,999

\$20,000 - \$29,999

\$30,000 - \$39,999

\$40,000 - \$49,999

\$50,000 - \$59,999

\$60,000 - \$69,999

\$70,000 - \$79,999

\$80,000 - \$89,999

\$90,000 - \$99,999



\$100,000 - \$149,999

More than \$150,000

Please specify your ethnicity (mark all that apply):

Asian

Black / African American

Hispanic

Native American / Alaskan Native

Native Hawaiian / Other Pacific Islander

White / Caucasian

Other

What is your political party affiliation?

Democrat

Republican

Independent

Undeclared

Other (specify)

Would you describe yourself as conservative or liberal?

Very Conservative

Conservative

Liberal

Very Liberal

Did you look up or use a calculator for any answers to this survey? Your compensation for this survey will not be affected by your response.

Yes

No



