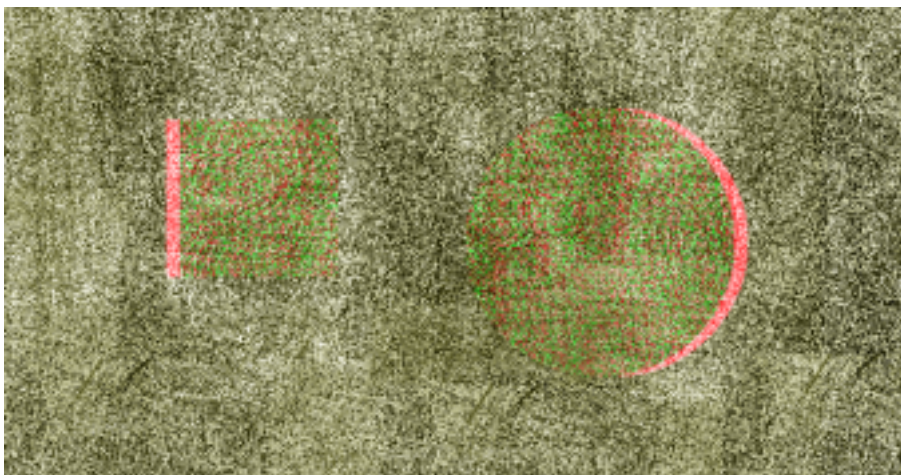


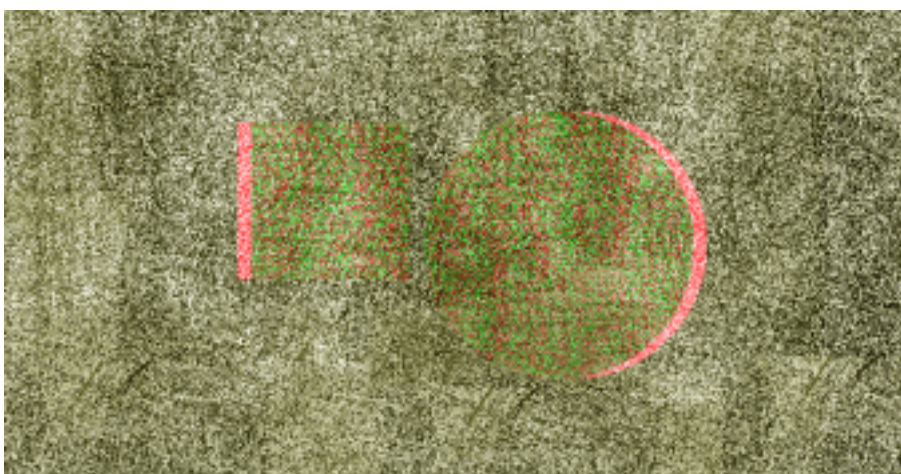
Uppgifter

Svaren börjar på sidan 35.

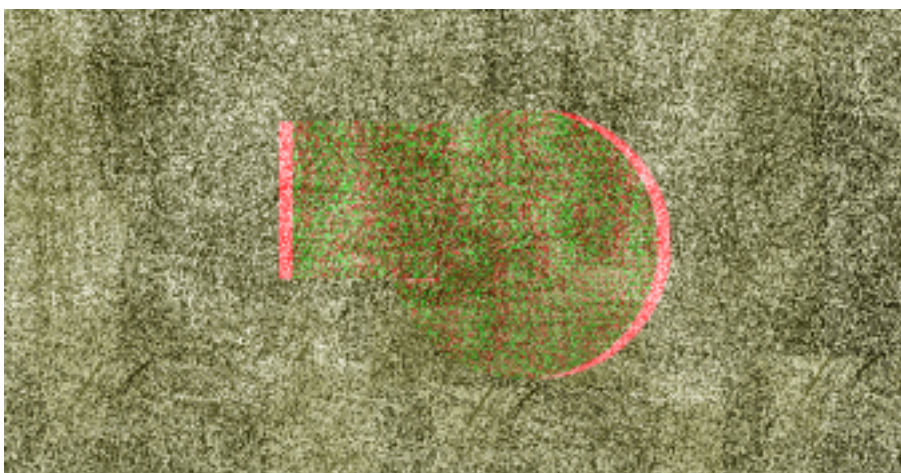
Uppgift 1. Steg 1



Problem 1 : 2



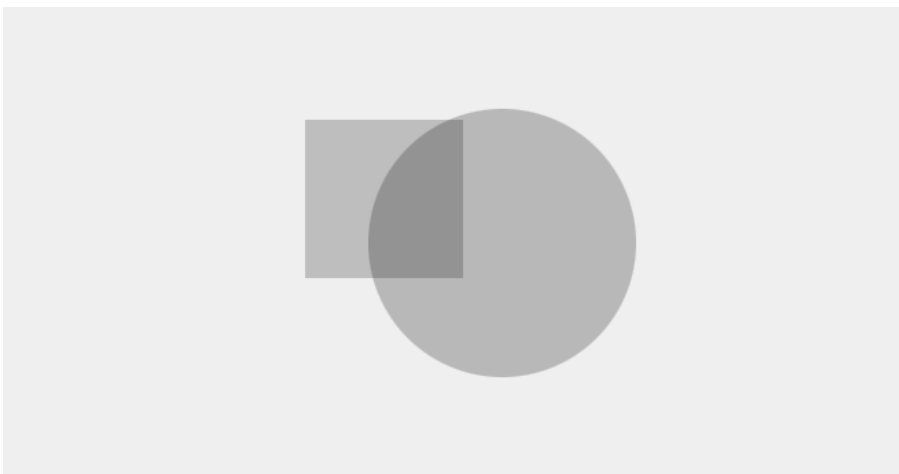
Problem 1 : 3



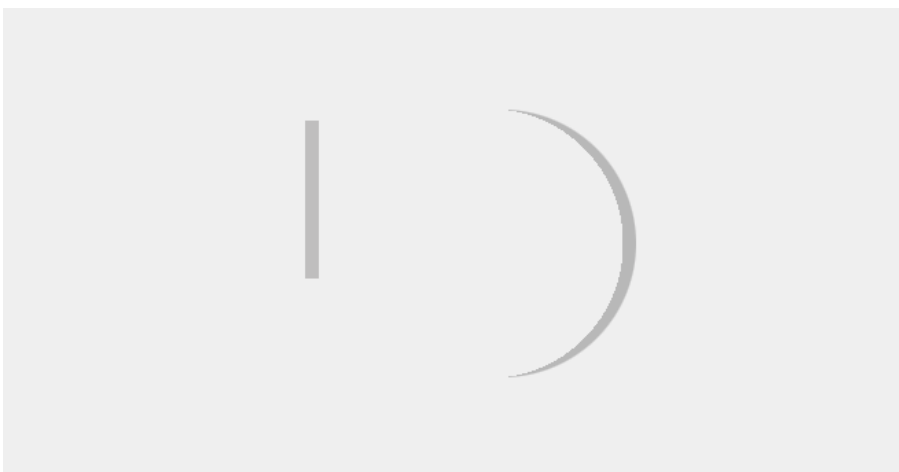
Svarsalternativ. Answer alternative 1. a



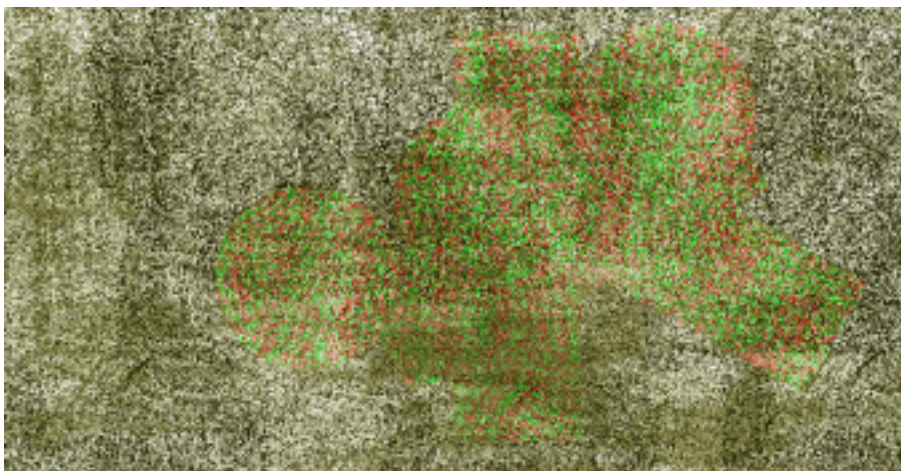
Svarsalternativ. Answer alternative 1. b



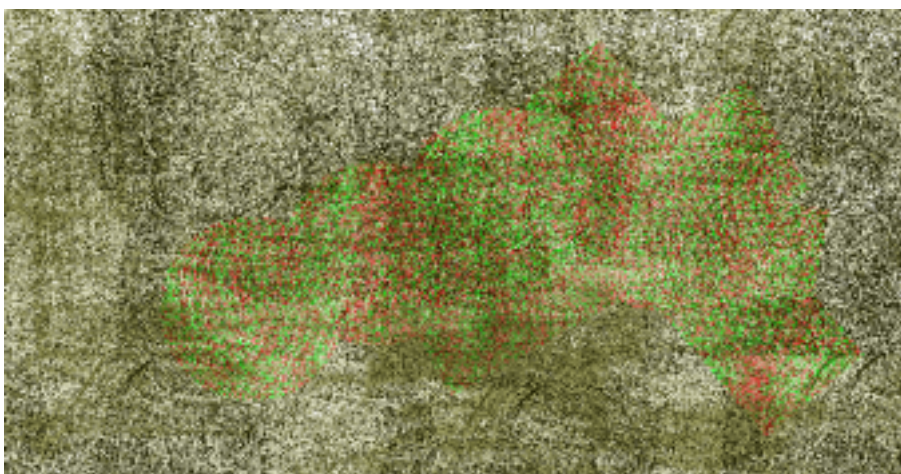
Svarsalternativ. Answer alternative 1. c



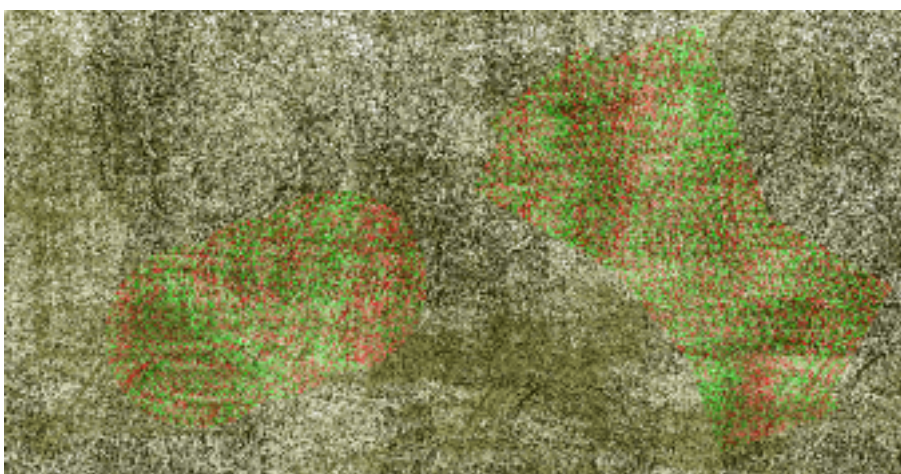
Problem 2 : 1.



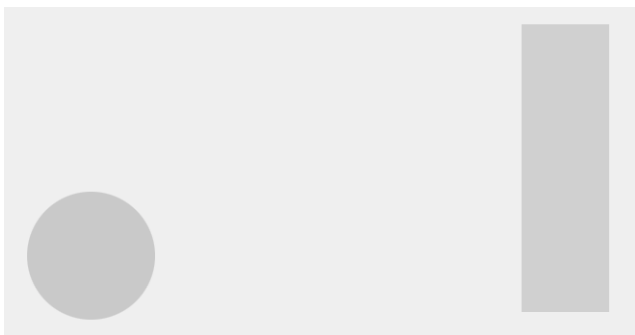
Problem 2 : 2



Problem 2 : 3



Svarsalternativ. Answer alternative 2. a



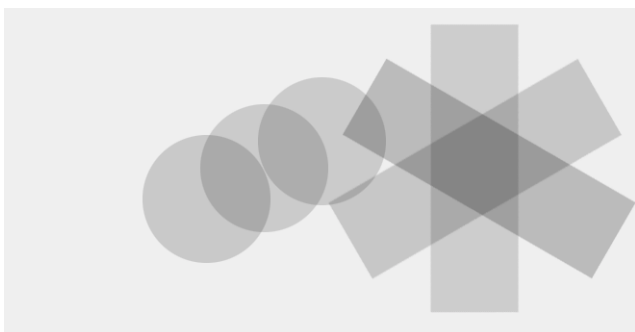
Svarsalternativ. Answer alternative 2. b



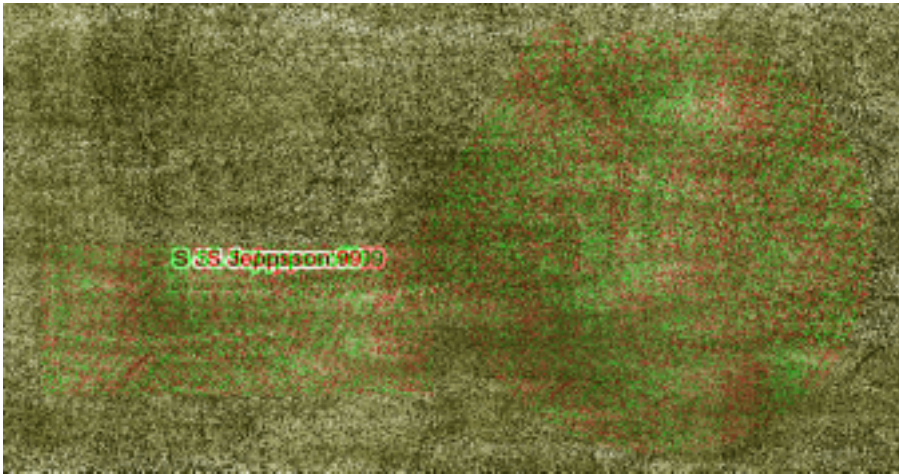
Svarsalternativ. Answer alternative 2. c



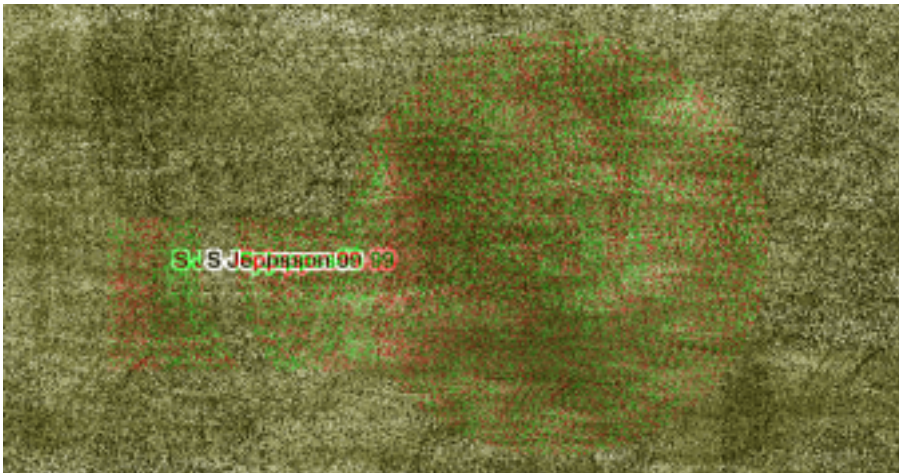
Svarsalternativ. Answer alternative 2. d



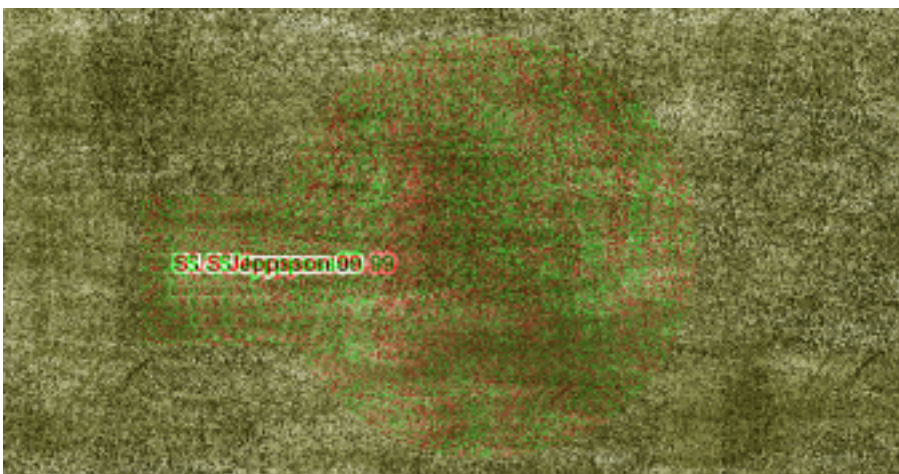
Problem 3 : 1.



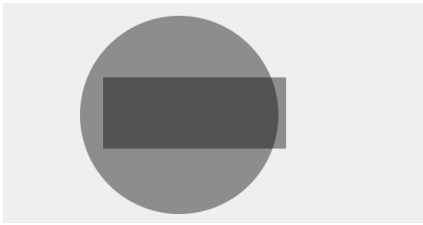
Problem 3 : 2



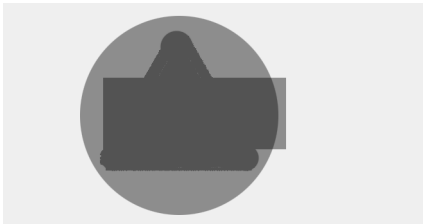
Problem 3 : 3



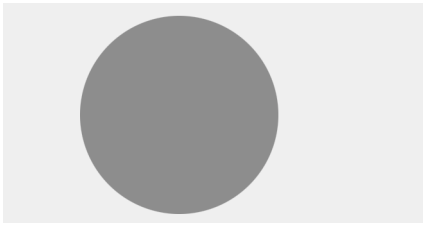
Svarsalternativ. Answer alternative 3. a



Svarsalternativ. Answer alternative 3. b



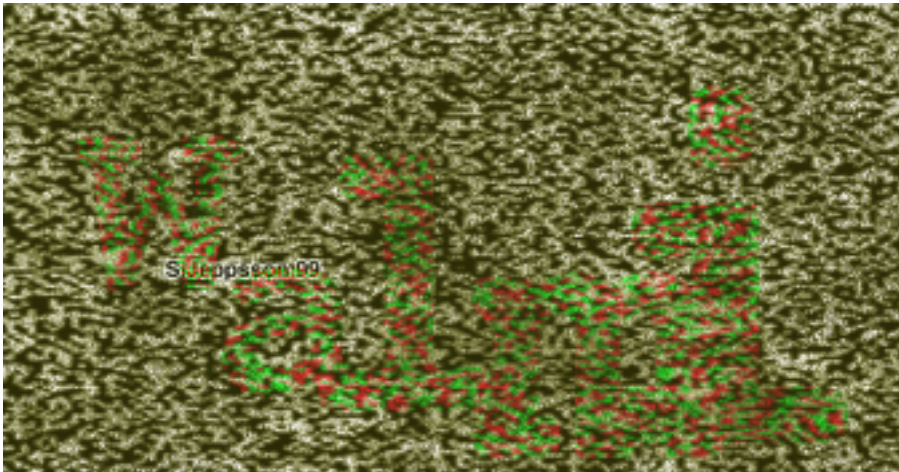
Svarsalternativ. Answer alternative 3. c



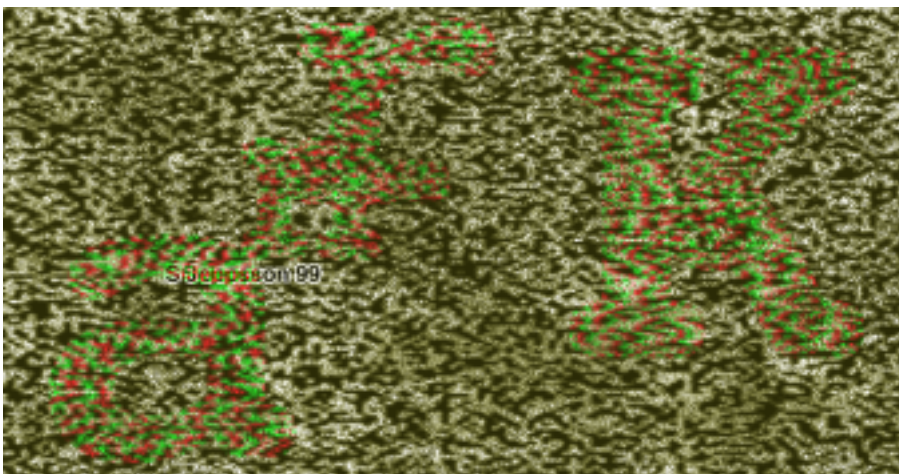
Svarsalternativ. Answer alternative 3. d



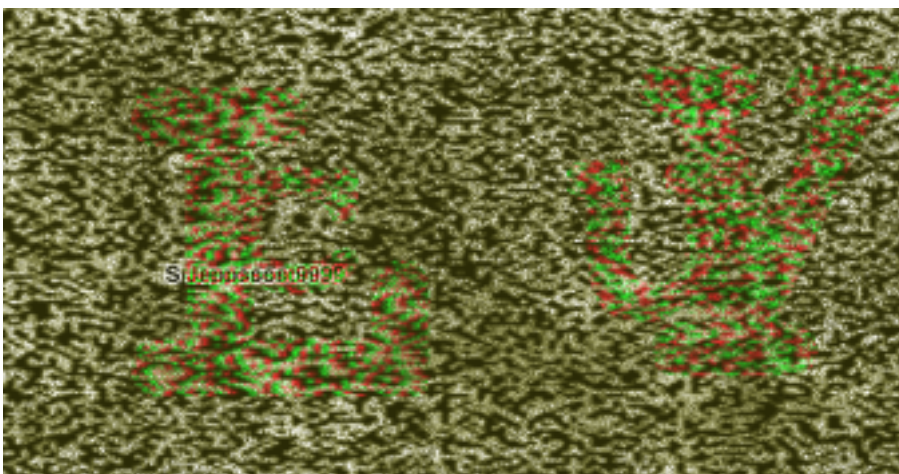
Problem 4 : 1.



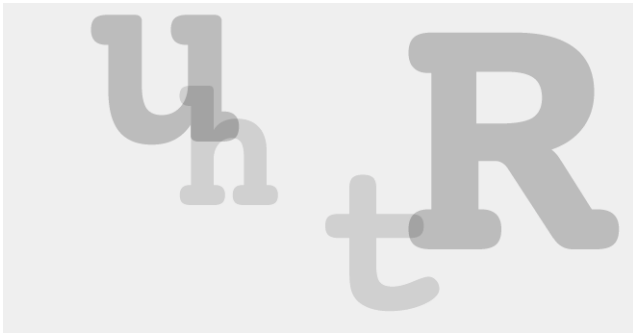
Problem 4 : 2



Problem 4 : 3



Svarsalternativ. Answer alternative 4. a



Svarsalternativ. Answer alternative 4. b



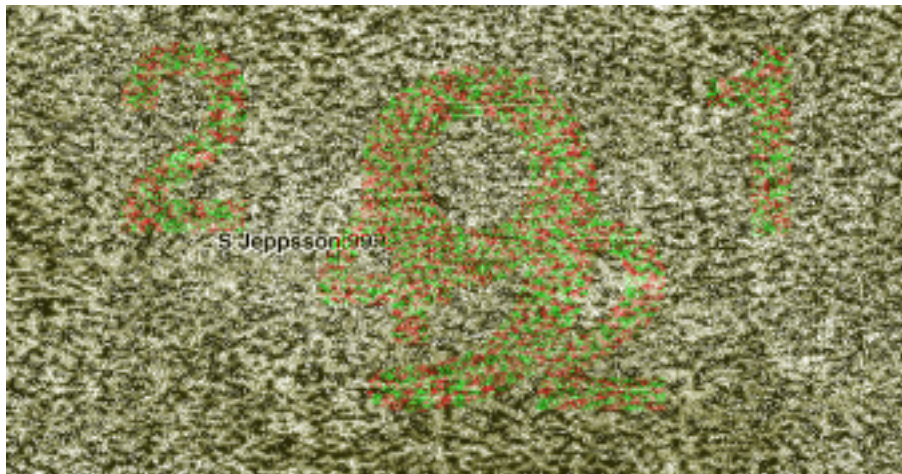
Svarsalternativ. Answer alternative 4. c



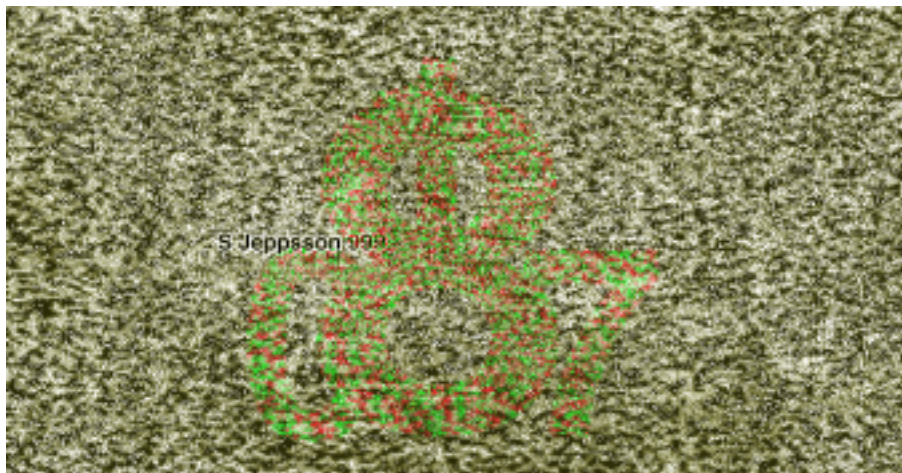
Svarsalternativ. Answer alternative 4. d



Problem 5 : 1.



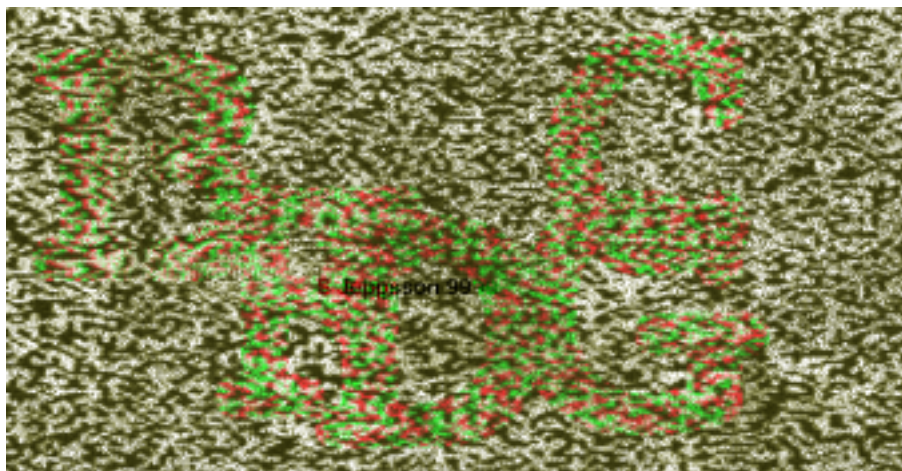
Problem 5 : 2



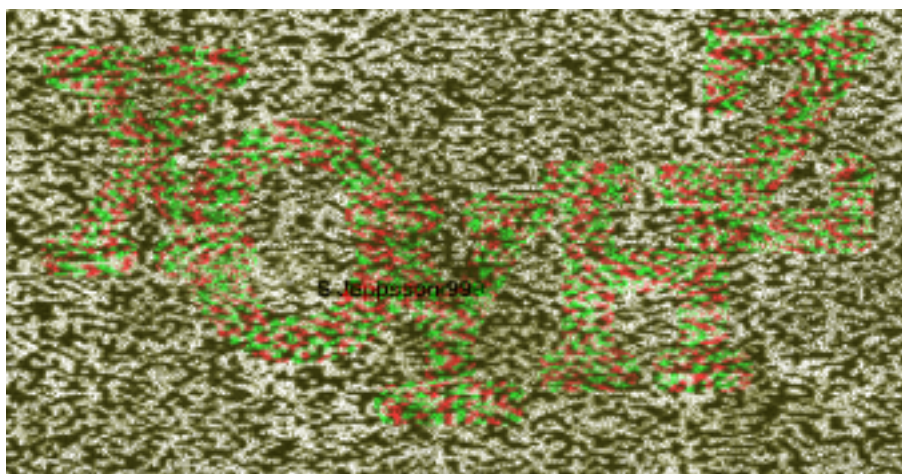
Svarsalternativ 5.



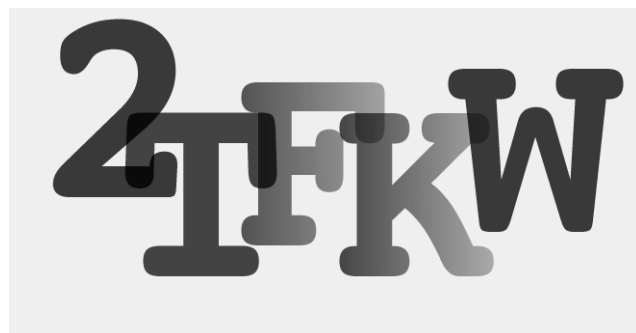
Problem 6 : 1.



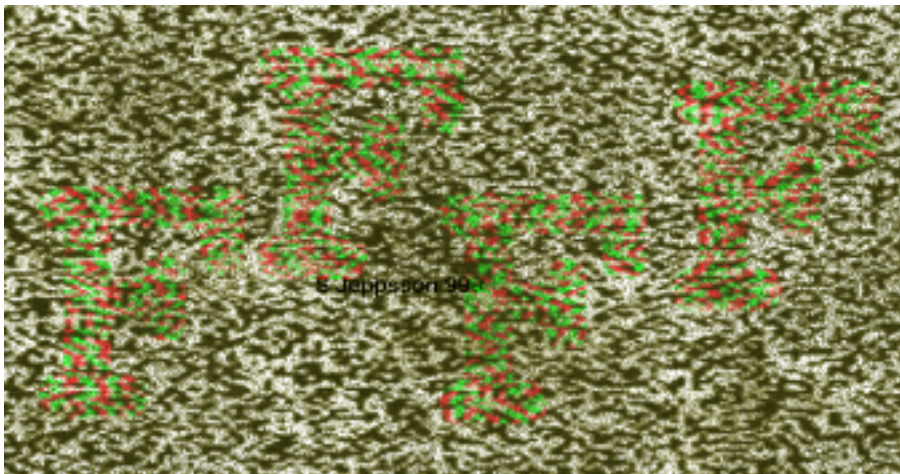
Problem 6 : 2



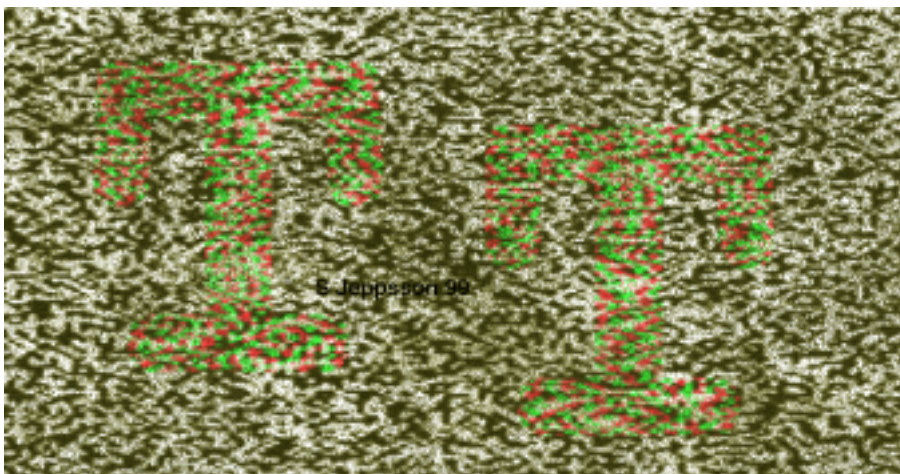
Svarsalternativ 6.



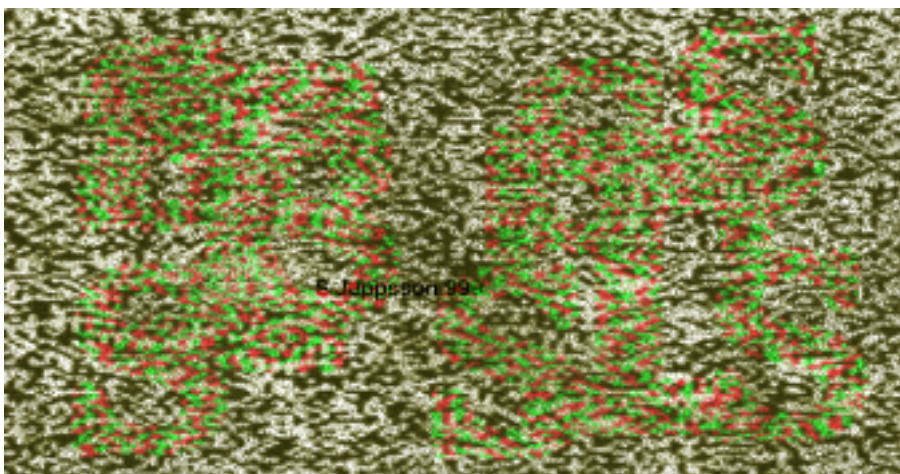
Problem 7 : 1.



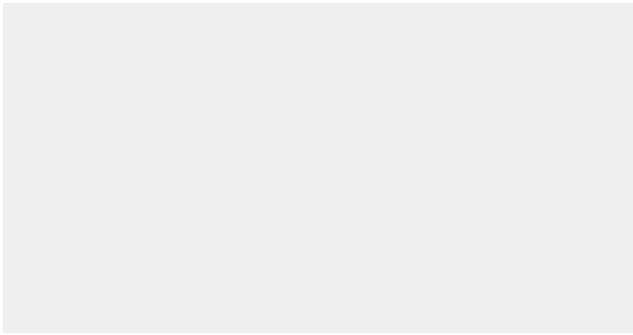
Problem 7 : 2



Problem 7 : 3



Svarsalternativ. Answer alternative 7. a



Svarsalternativ. Answer alternative 7. b



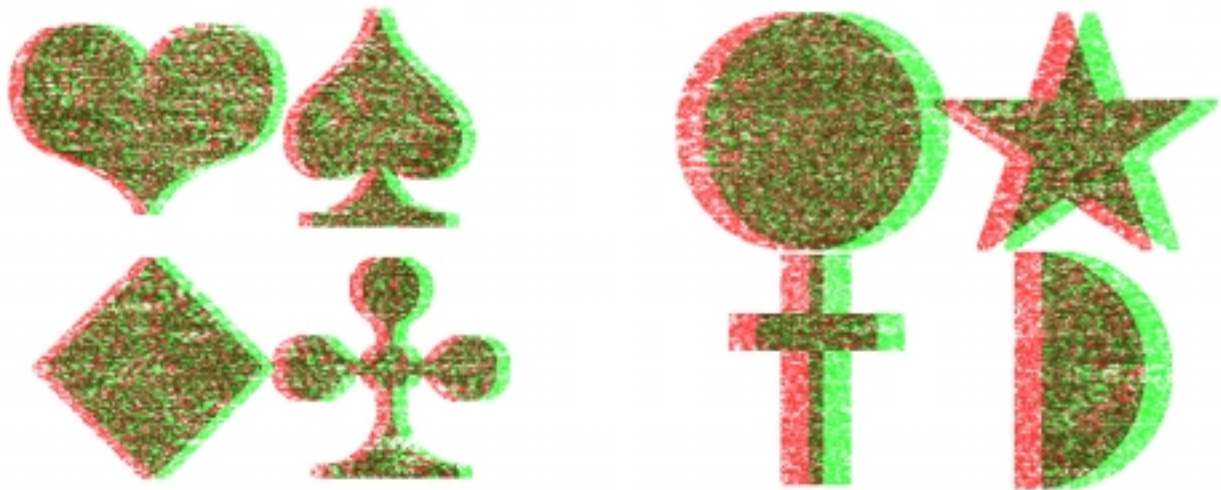
Svarsalternativ. Answer alternative 7. c



Svarsalternativ. Answer alternative 7. d



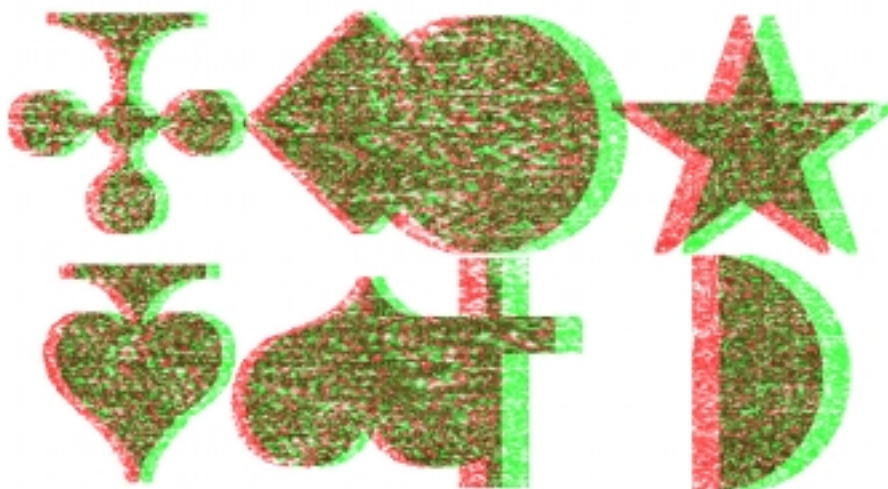
Problem 8 : 1.



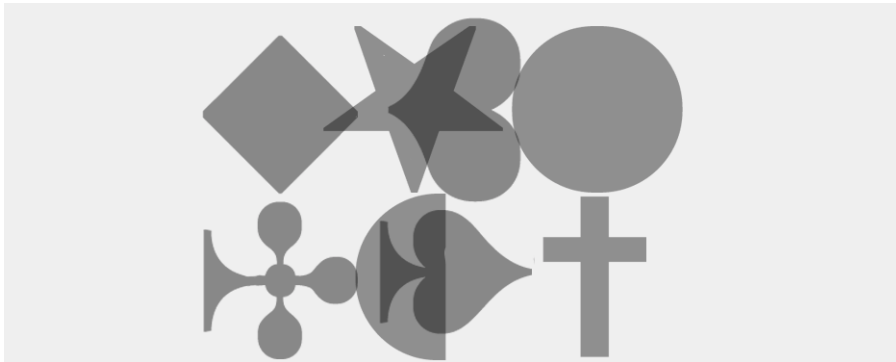
Problem 8 : 2



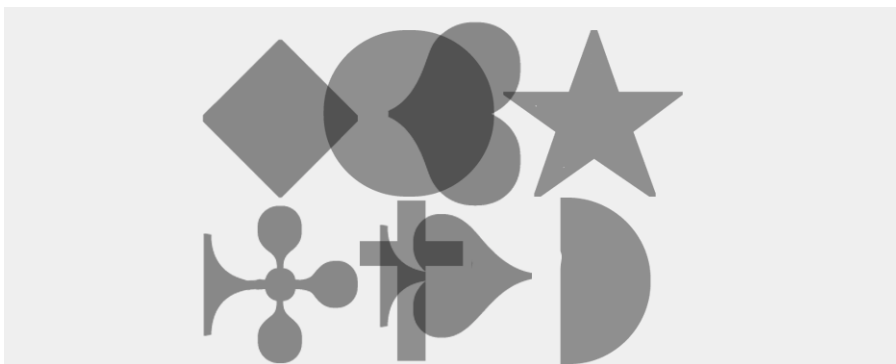
Problem 8 : 3



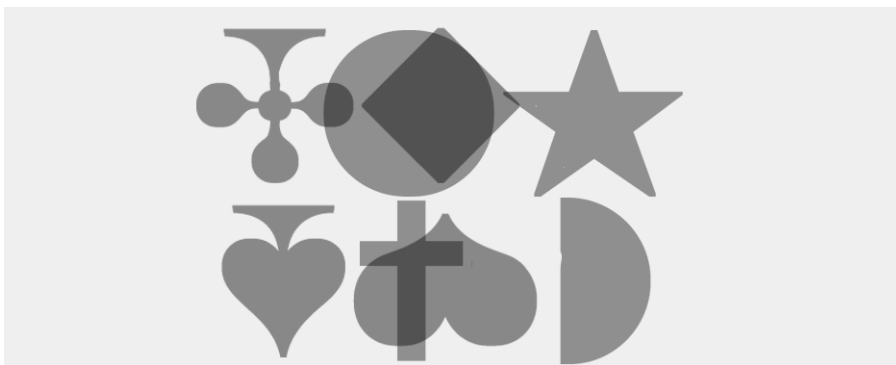
Svarsalternativ. Answer alternative 8. a



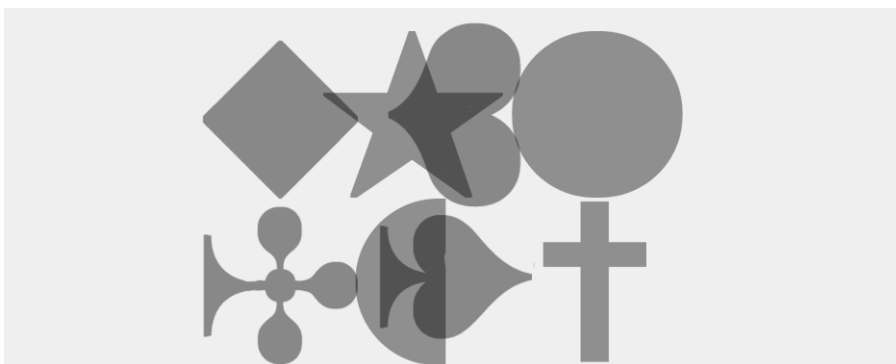
Svarsalternativ. Answer alternative 8. b



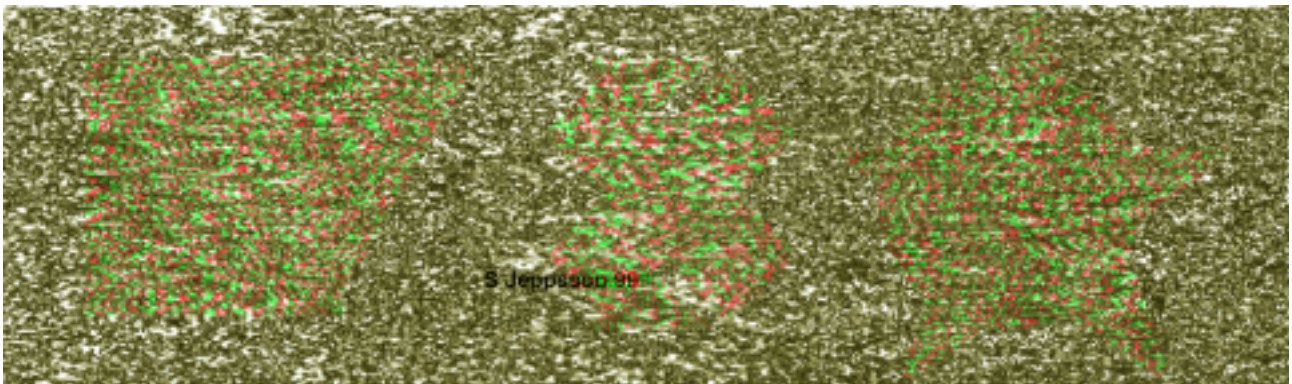
Svarsalternativ. Answer alternative 8. c



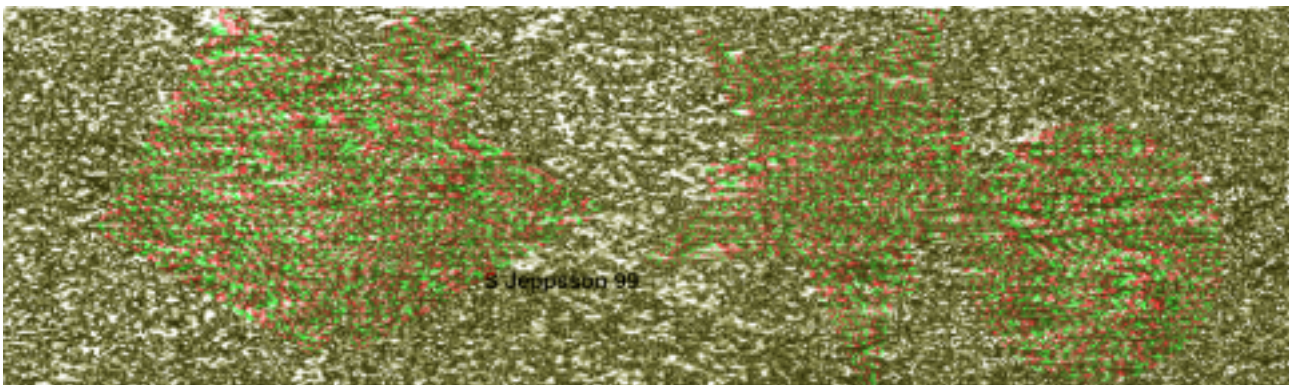
Svarsalternativ. Answer alternative 8. d



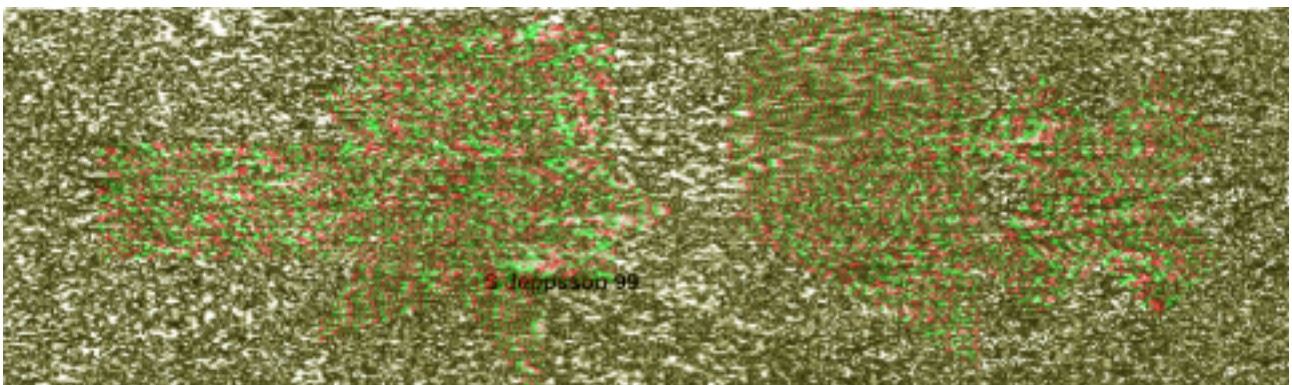
Problem 9 : 1.



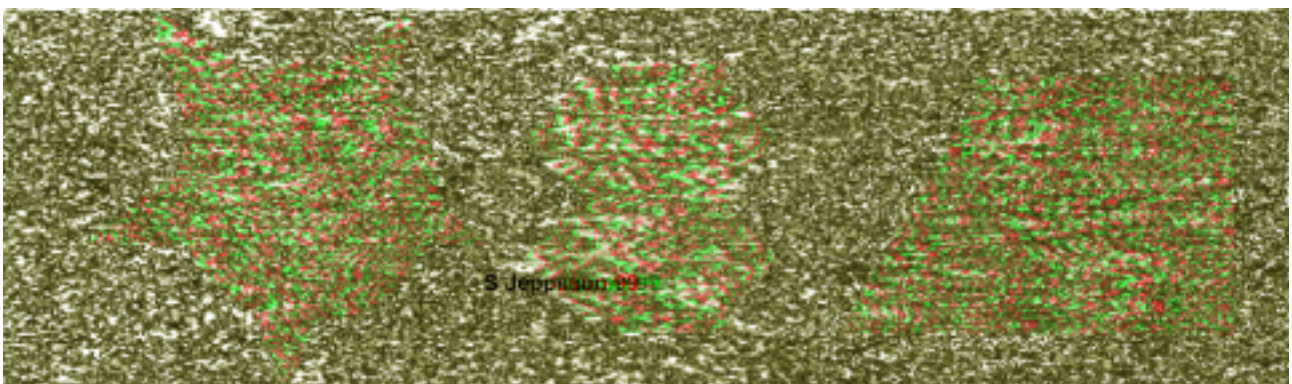
Problem 9 : 2



Problem 9 : 3



Problem 9 : 4



Svarsalternativ. Answer alternative 9. a



Svarsalternativ. Answer alternative 9. b



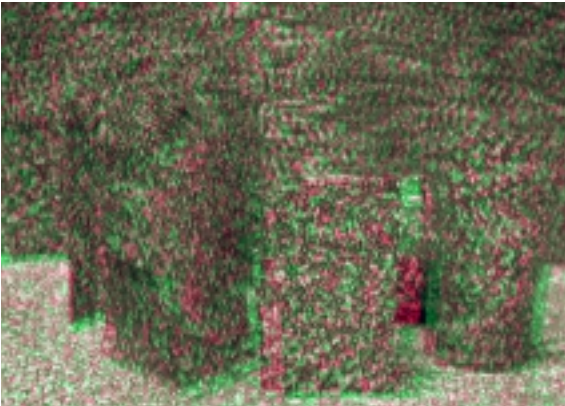
Svarsalternativ. Answer alternative 9. c



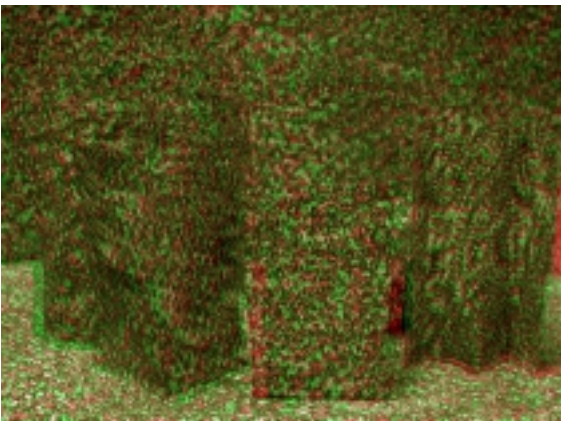
Svarsalternativ. Answer alternative 9. d



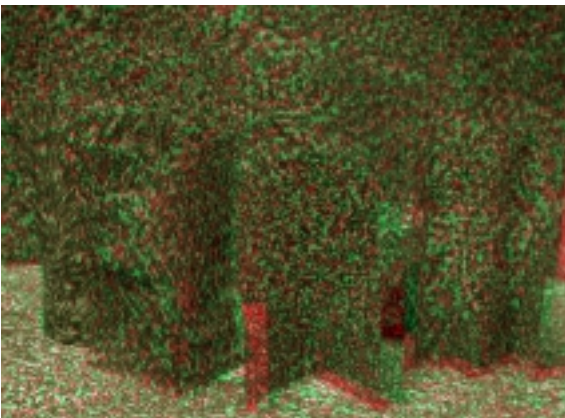
Problem 10 : 1.



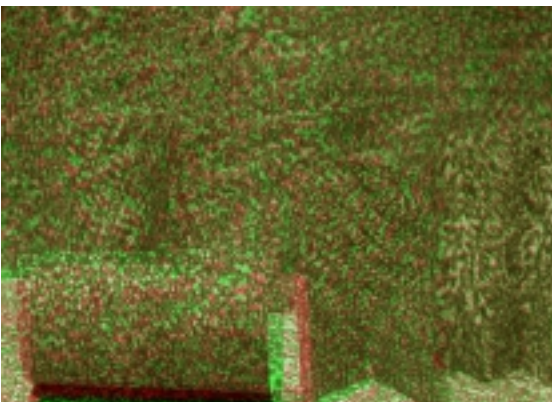
Problem 10 : 2



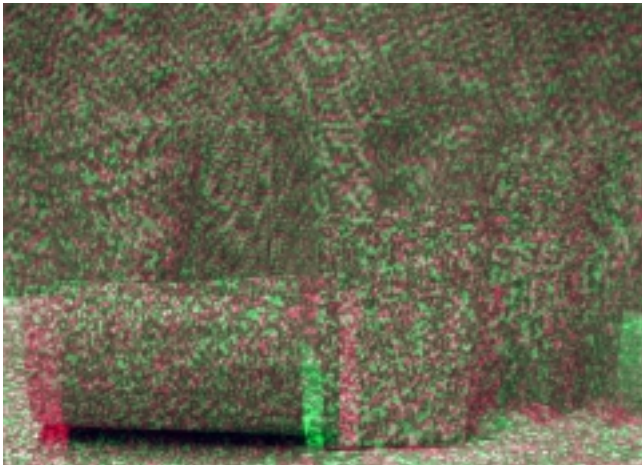
Problem 10 : 3



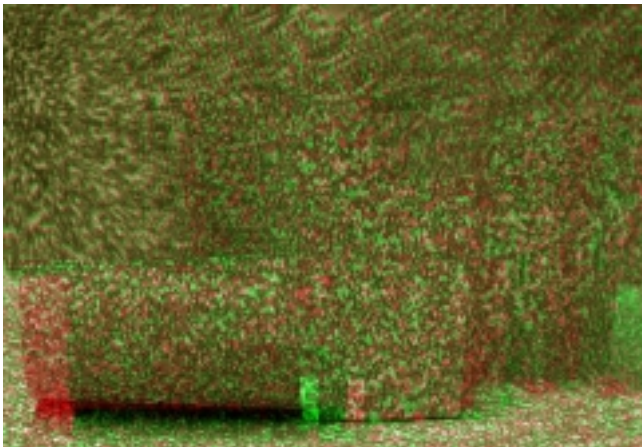
Problem 10 : 4



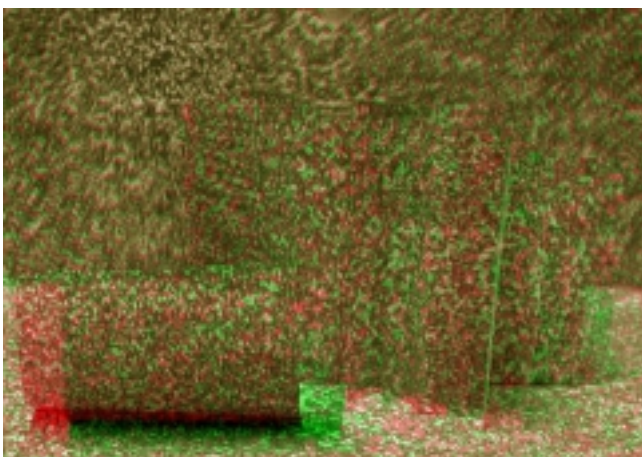
Svarsalternativ. Answer alternative 10. a



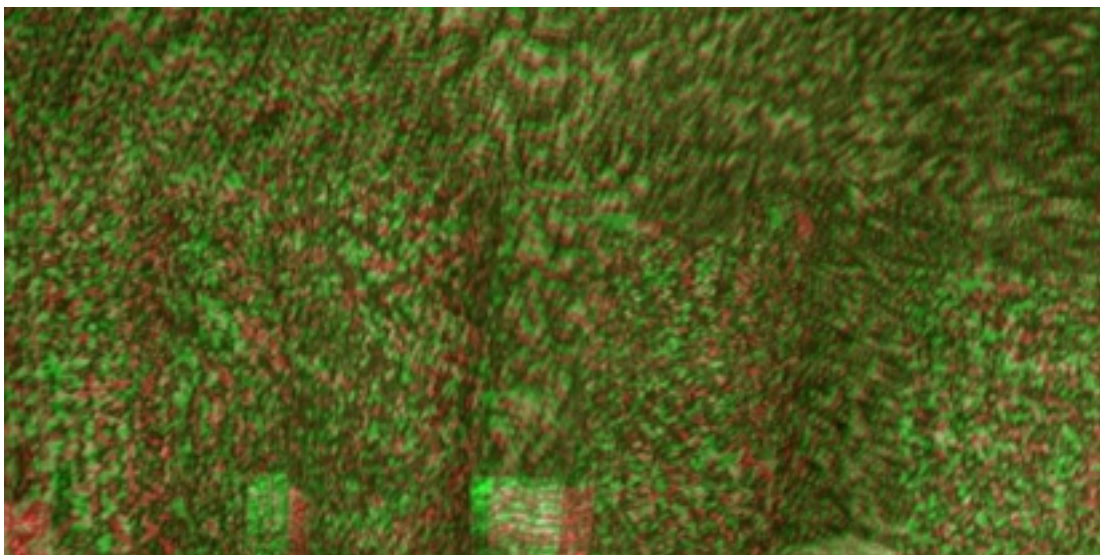
Svarsalternativ. Answer alternative 10. b



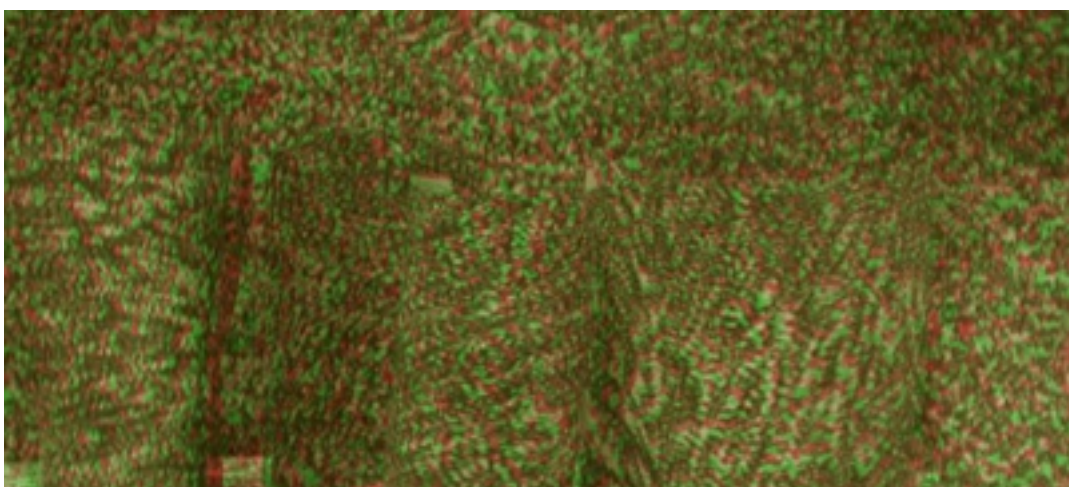
Svarsalternativ. Answer alternative 10. c



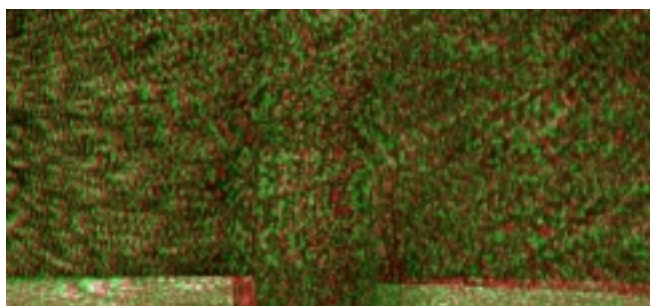
Problem 11 : 1.



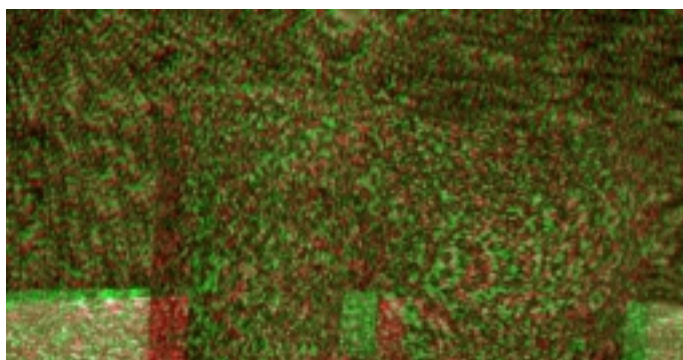
Problem 11 : 2



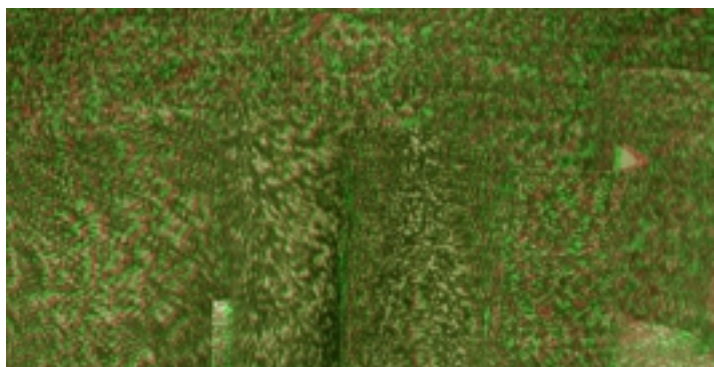
Svarsalternativ. Answer alternative 11. a



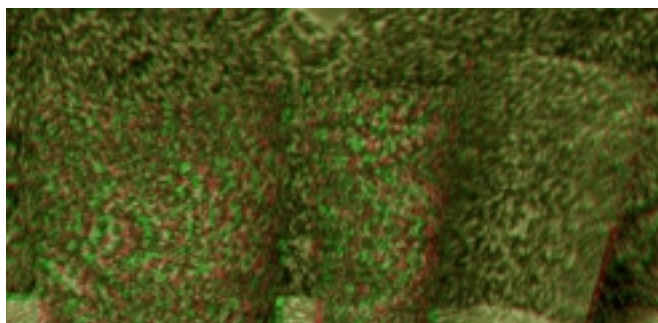
Svarsalternativ. Answer alternative 11. b



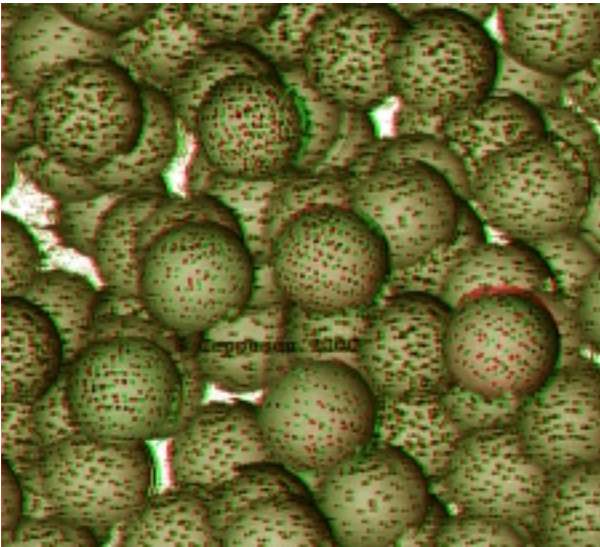
Svarsalternativ. Answer alternative 11. c



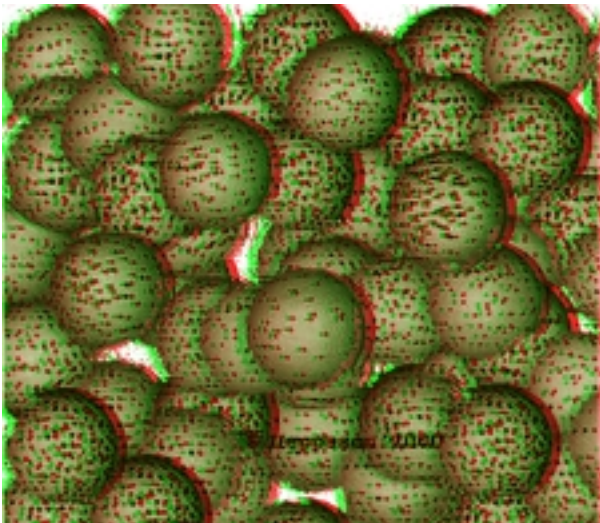
Svarsalternativ. Answer alternative 11. d



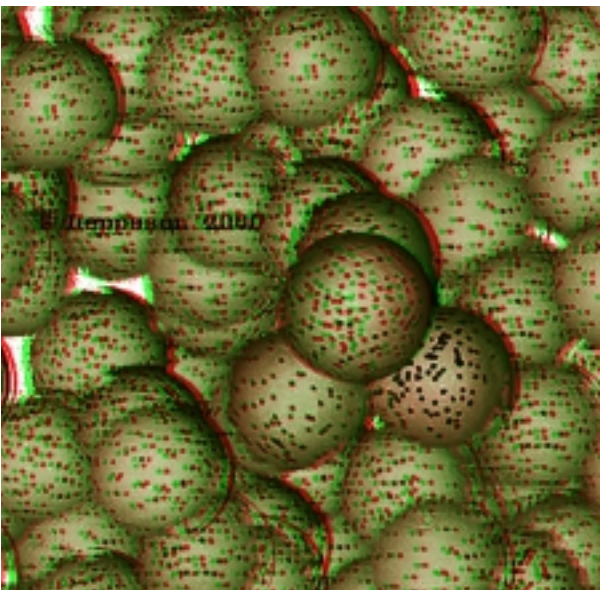
Problem 12 : 1.



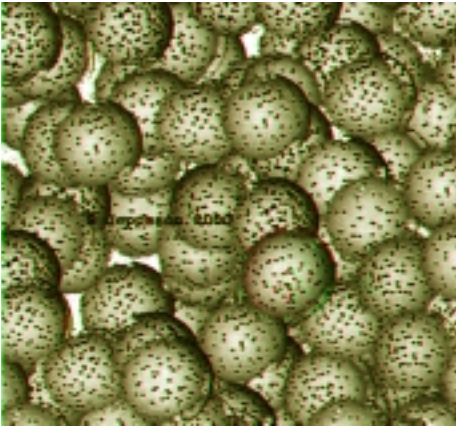
Problem 12 : 2



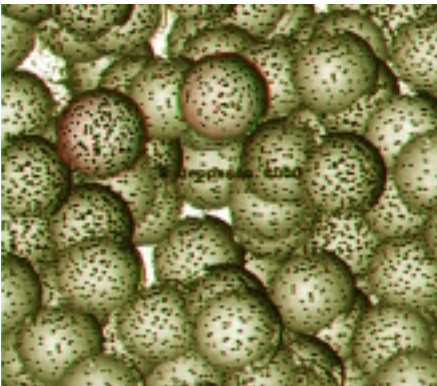
Svarsalternativ. Answer alternative 12. a



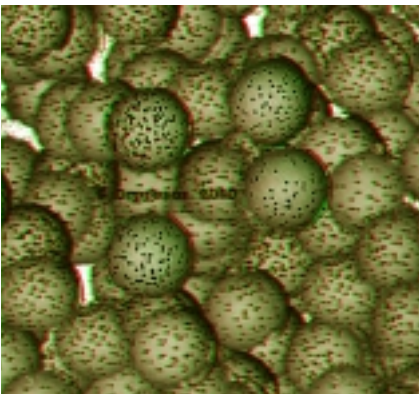
Svarsalternativ. Answer alternative 12. b



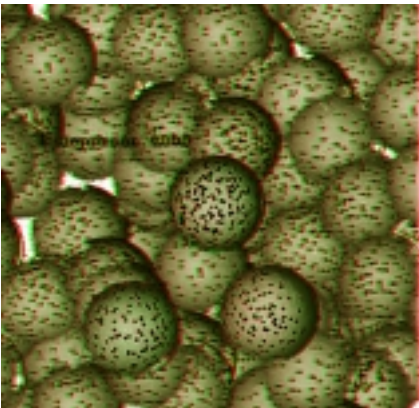
Svarsalternativ. Answer alternative 12. c



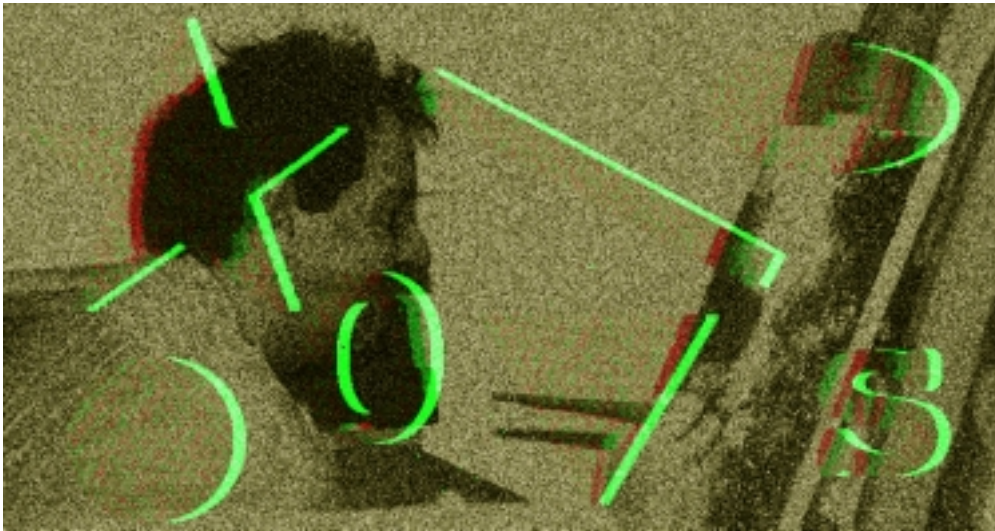
Svarsalternativ. Answer alternative 12. d



Svarsalternativ. Answer alternative 12. e



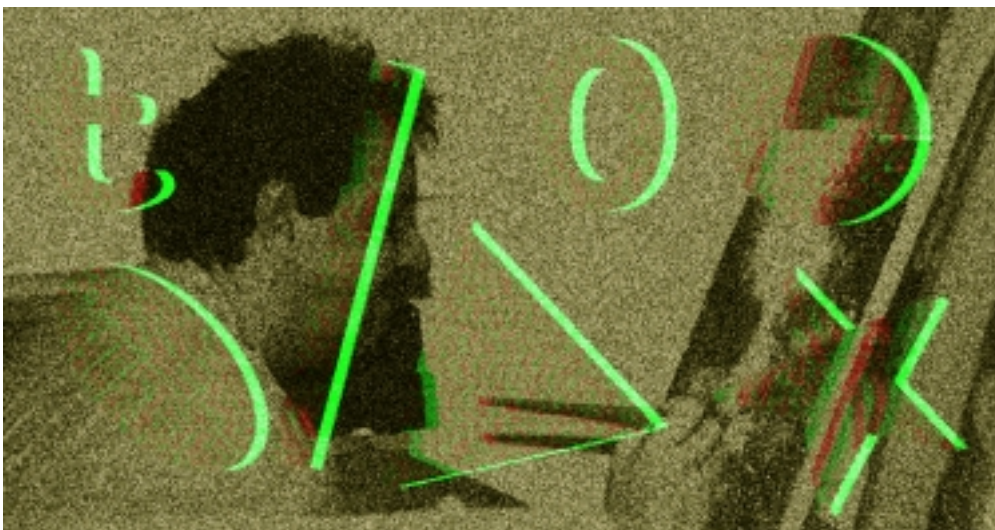
Problem 13 : 1.



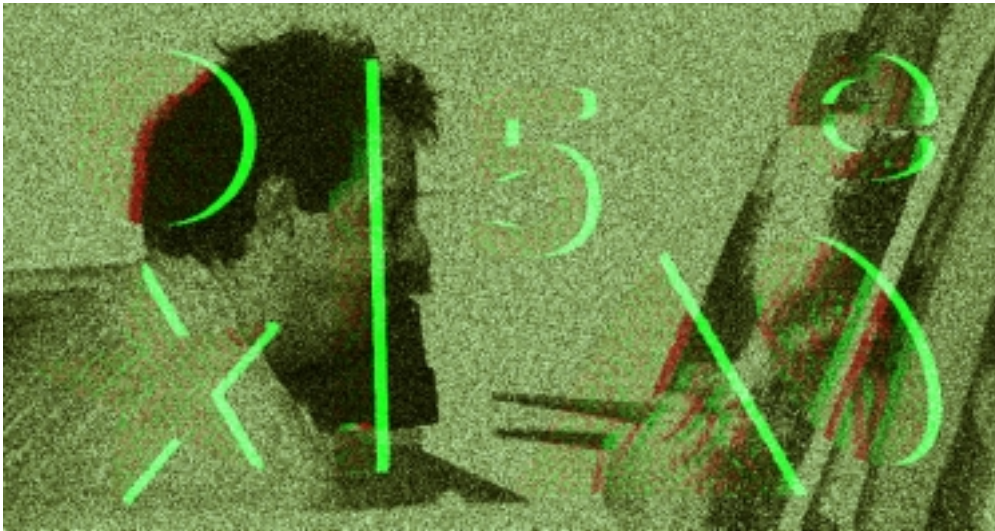
Problem 13 : 2



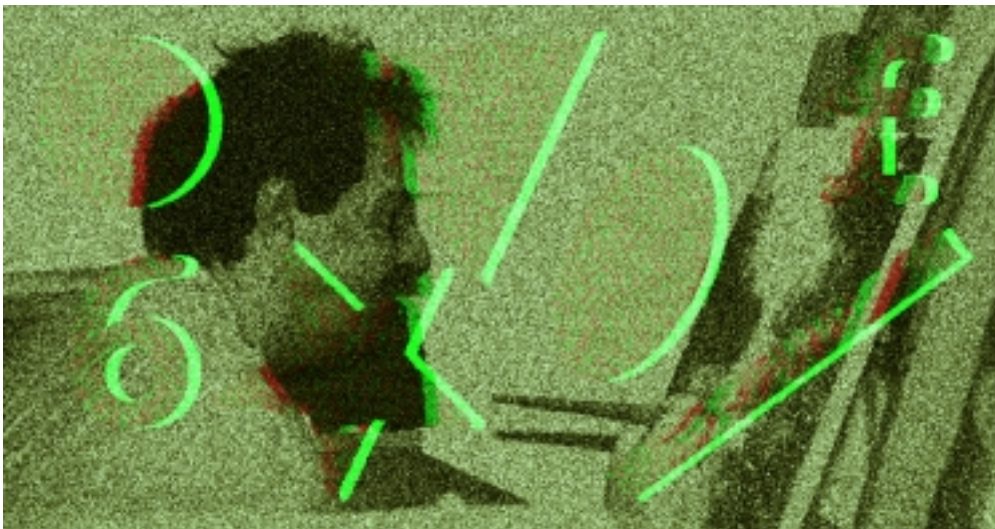
Svarsalternativ. Answer alternative 13. a



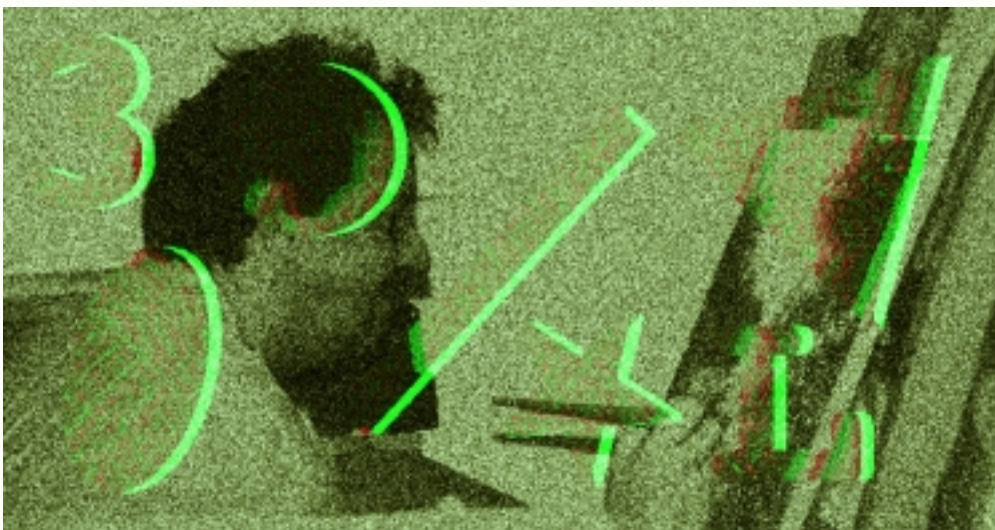
Svarsalternativ. Answer alternative 13. b



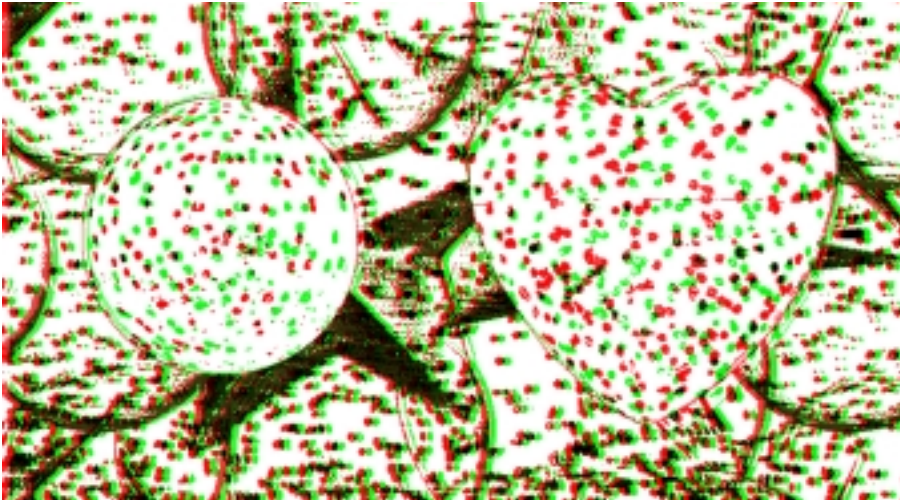
Svarsalternativ. Answer alternative 13. c



Svarsalternativ. Answer alternative 13. d



Problem 14 : 1.



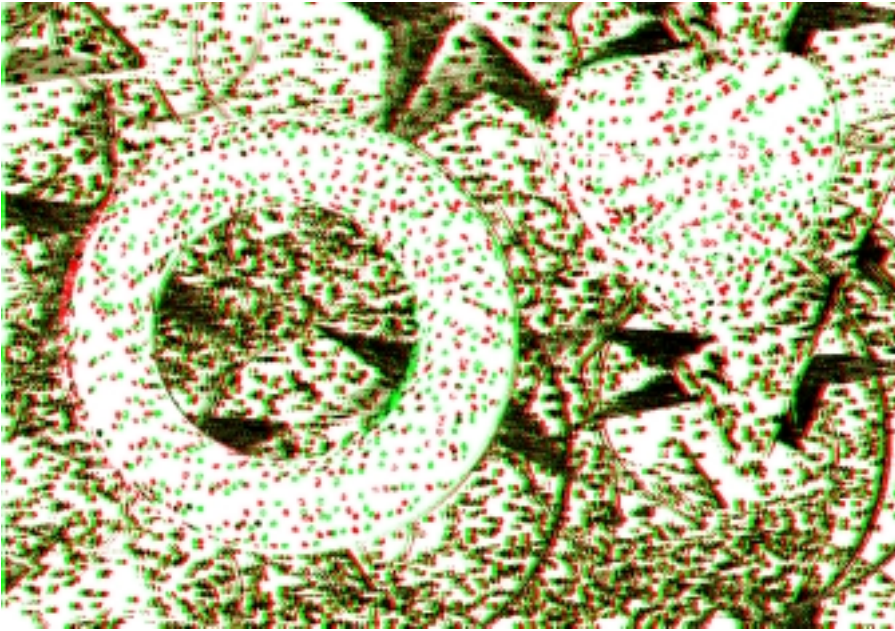
Problem 14 : 2



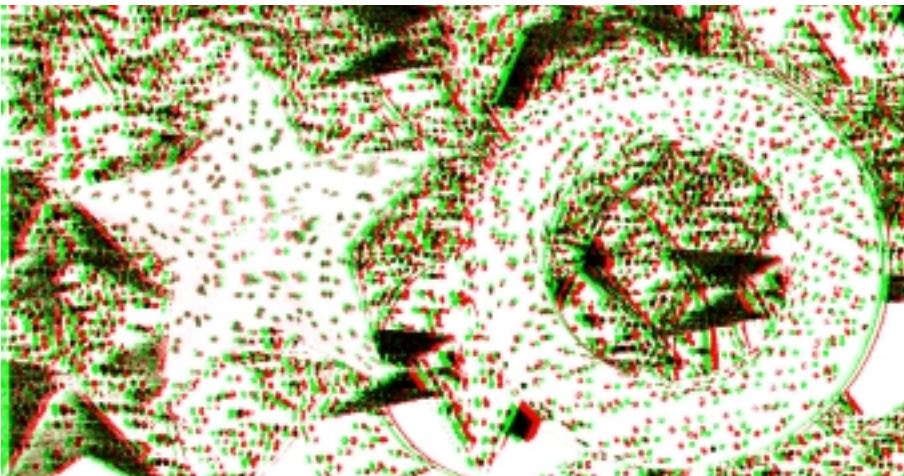
Svarsalternativ. Answer alternative 14. a



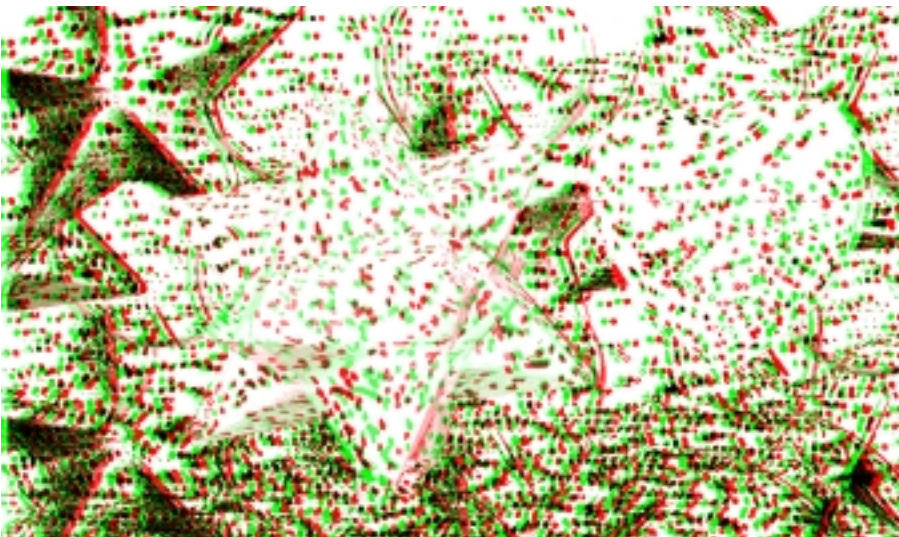
Svarsalternativ. Answer alternative 14. b



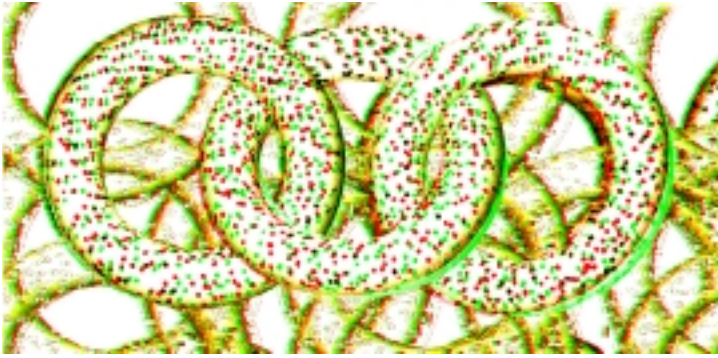
Svarsalternativ. Answer alternative 14. c



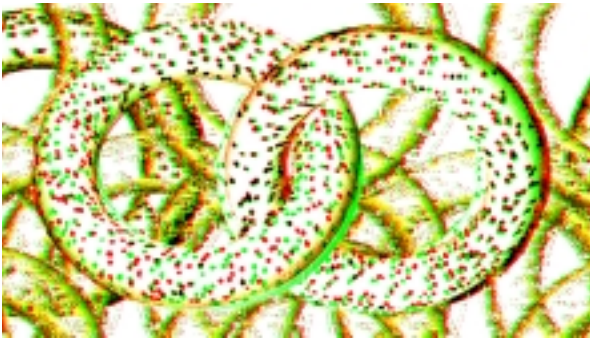
Svarsalternativ. Answer alternative 14. d



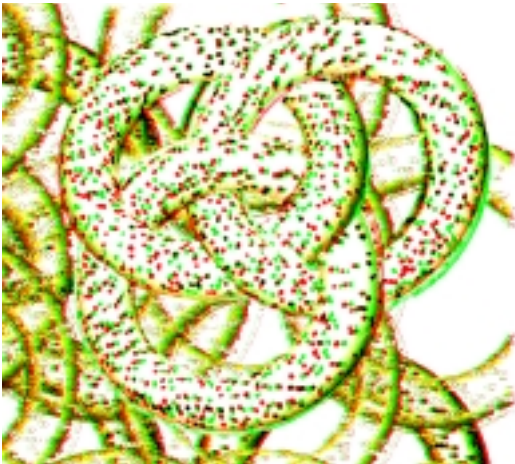
Problem 15 : 1.



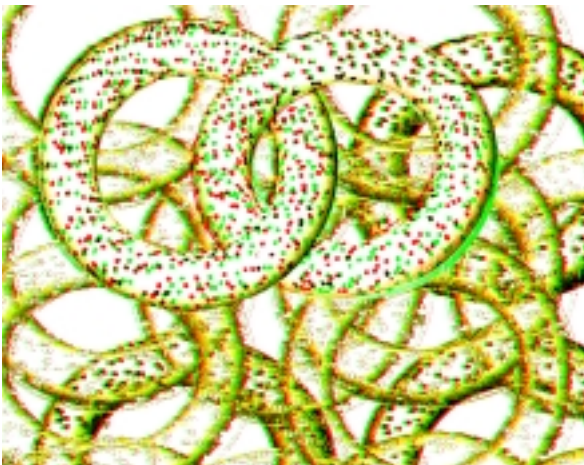
Problem 15 : 2



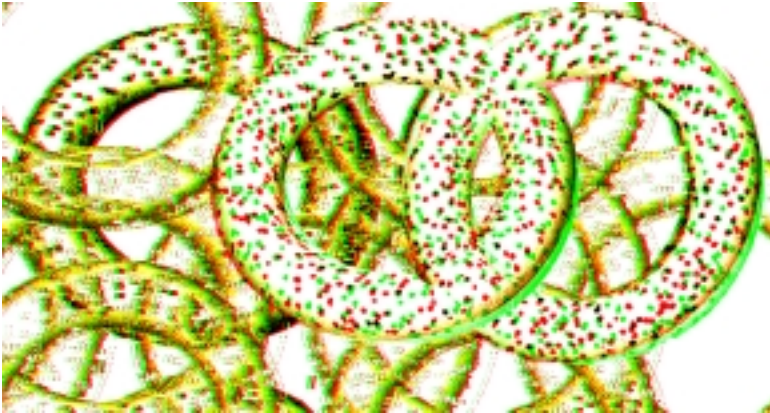
Svarsalternativ. Answer alternative 15. a



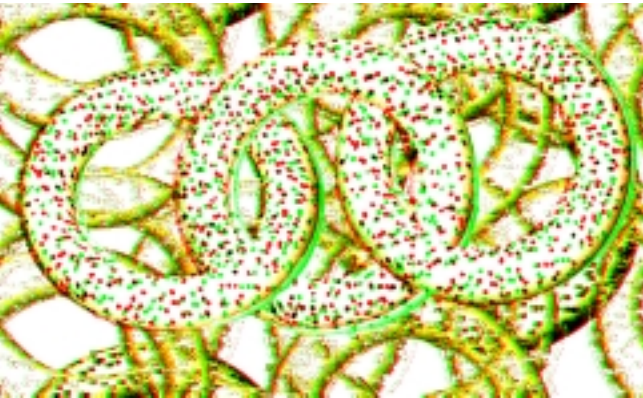
Svarsalternativ. Answer alternative 15. b



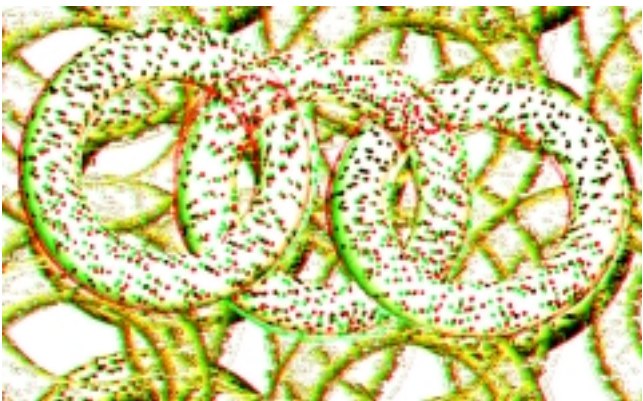
Svarsalternativ. Answer alternative 15. c



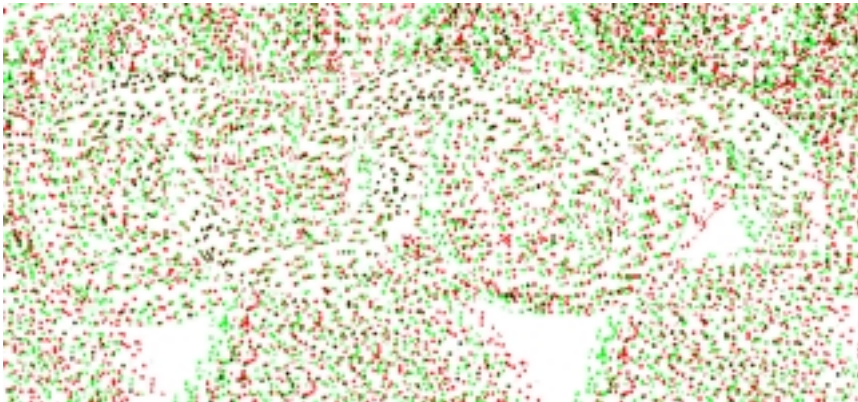
Svarsalternativ. Answer alternative 15. d



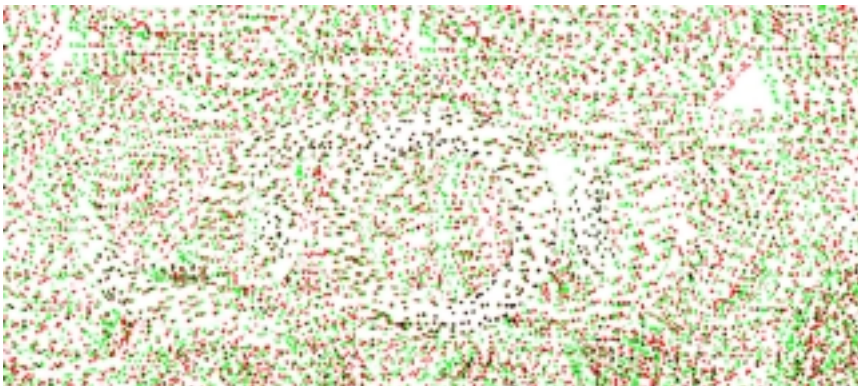
Svarsalternativ. Answer alternative 15. e



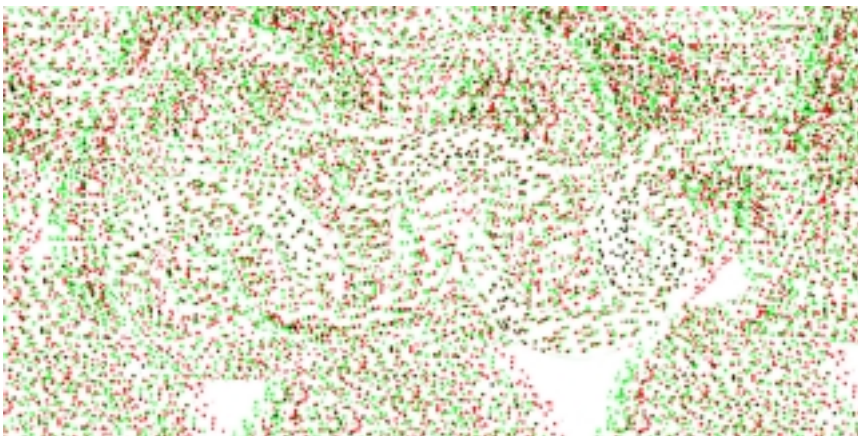
Problem 16 : 1.



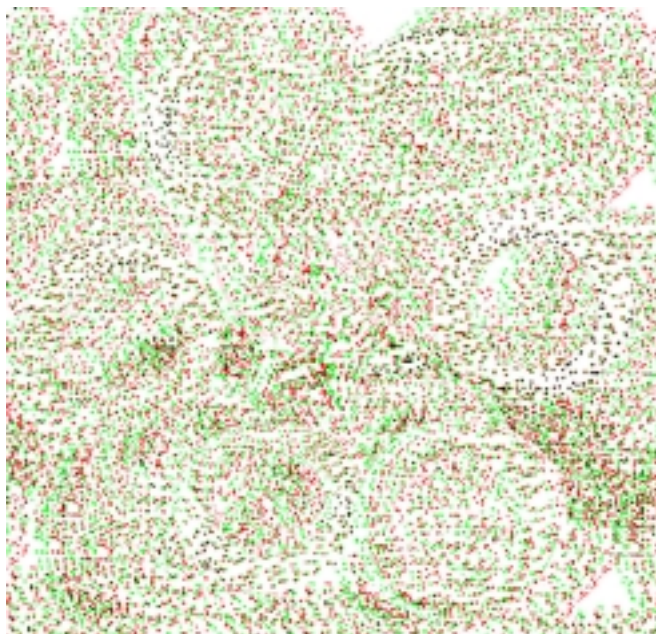
Svarsalternativ. Answer alternative 16. a



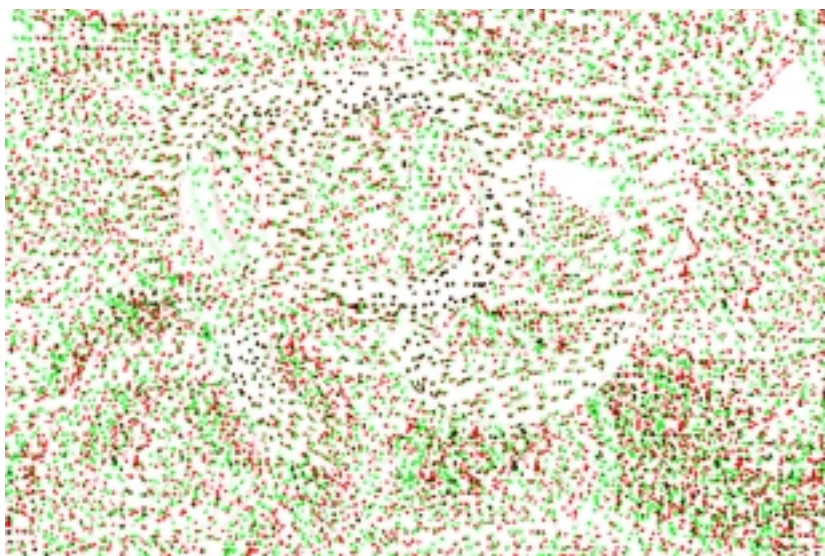
Svarsalternativ. Answer alternative 16. b



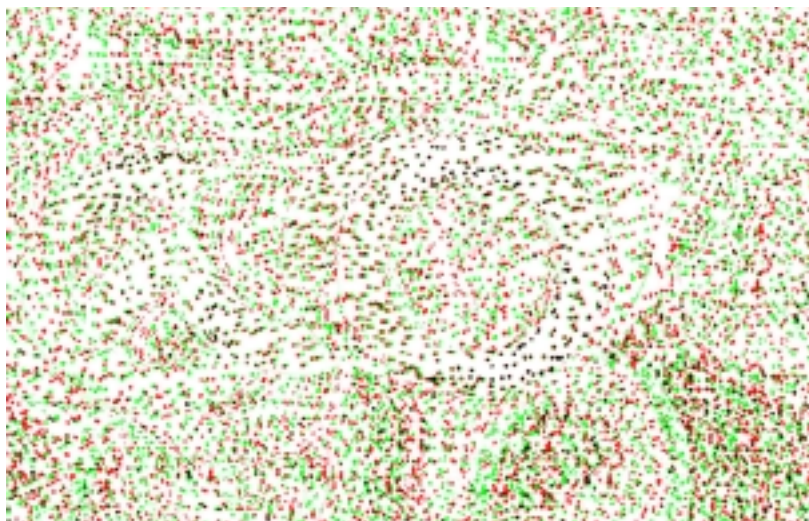
Svarsalternativ. Answer alternative 16. c



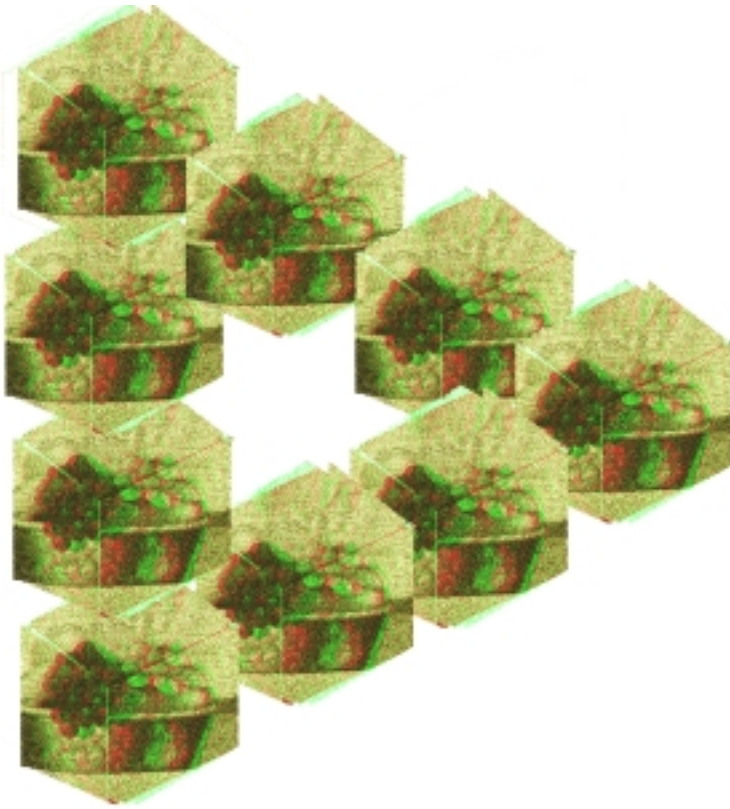
Svarsalternativ. Answer alternative 16. d



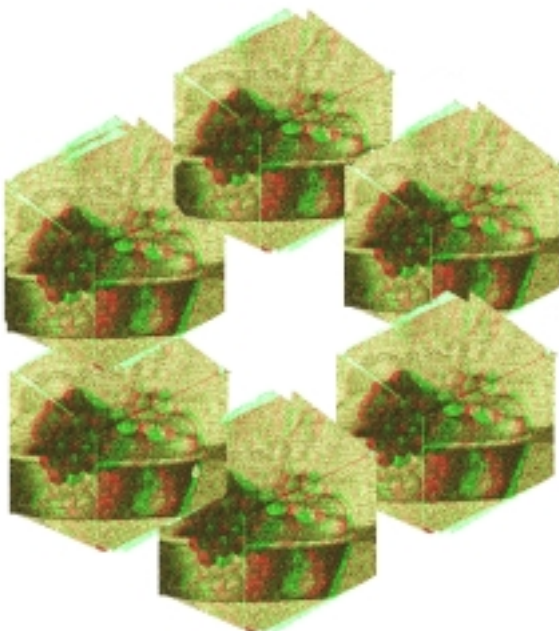
Svarsalternativ. Answer alternative 16. e



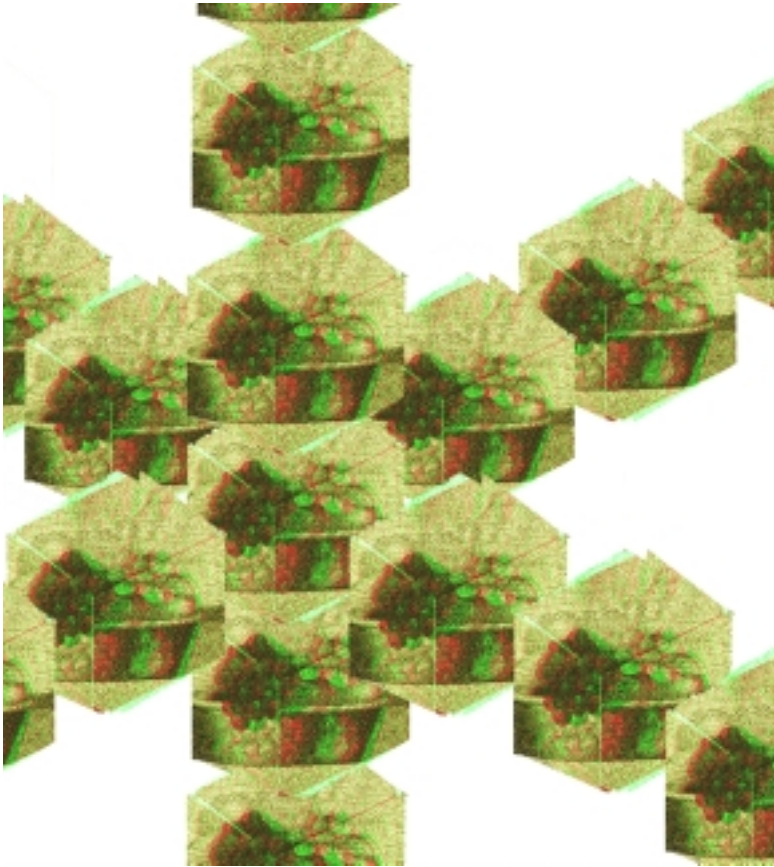
Problem 17 : 1.



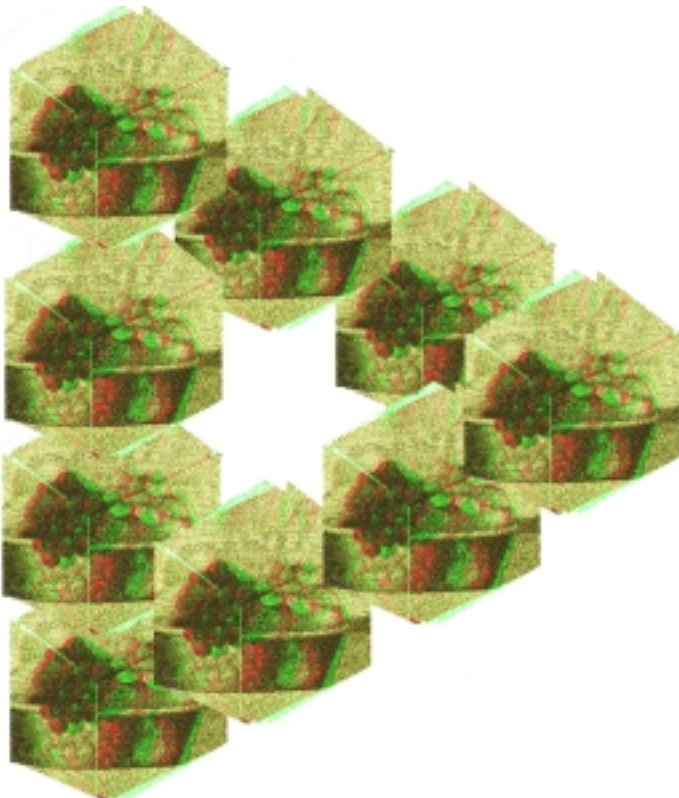
Svarsalternativ. Answer alternative 17. a



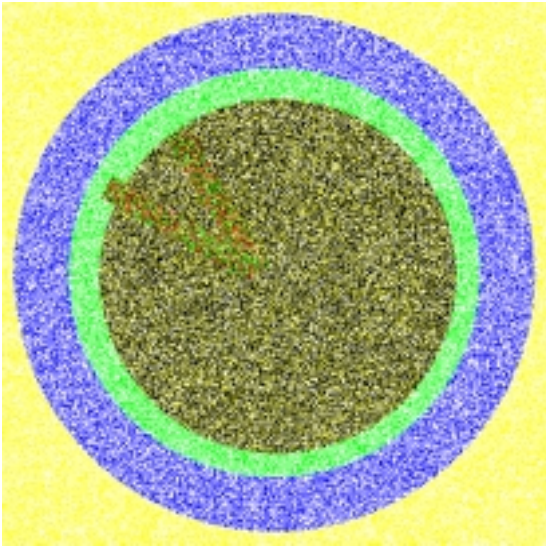
Svarsalternativ. Answer alternative 17. b



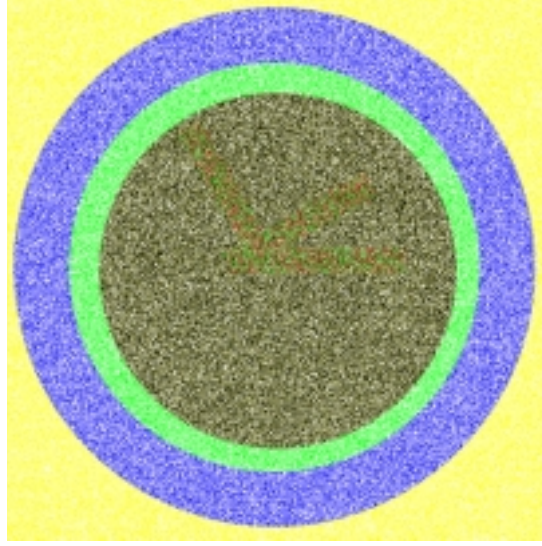
Svarsalternativ. Answer alternative 17. c



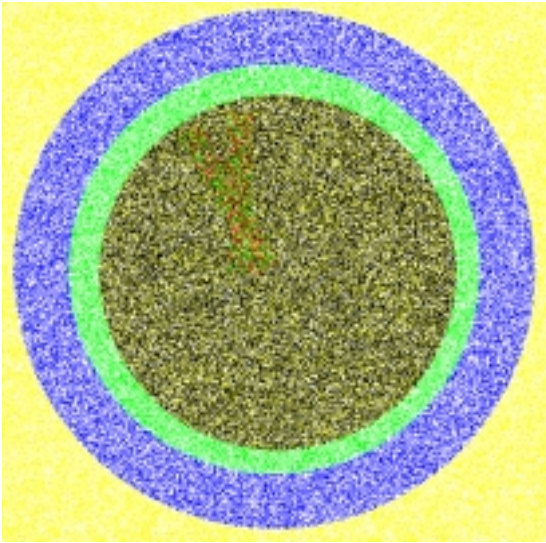
Problem 18 : 1.



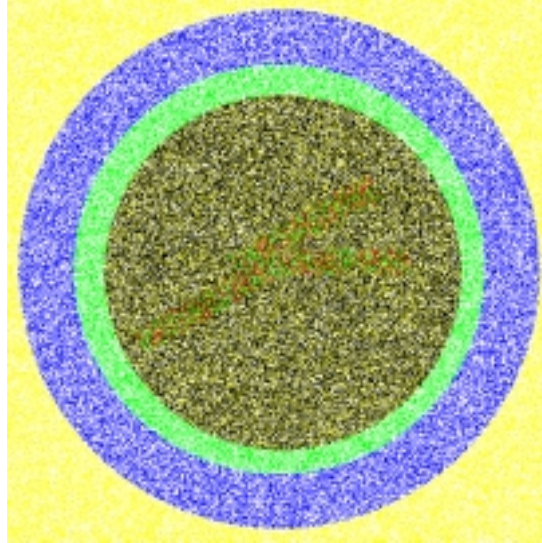
Svarsalt. Answer alt 18. b



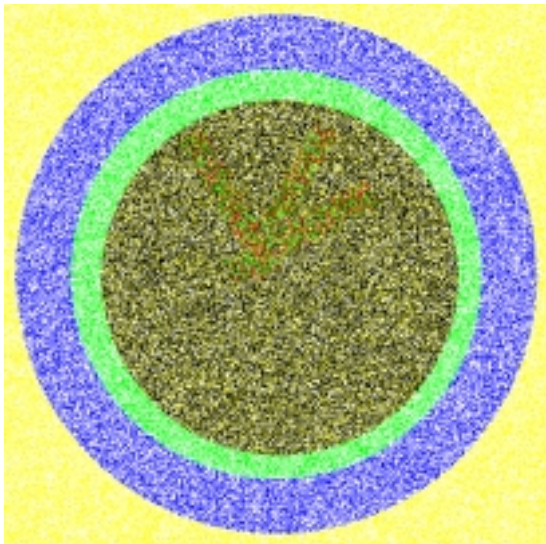
Problem 18 : 2



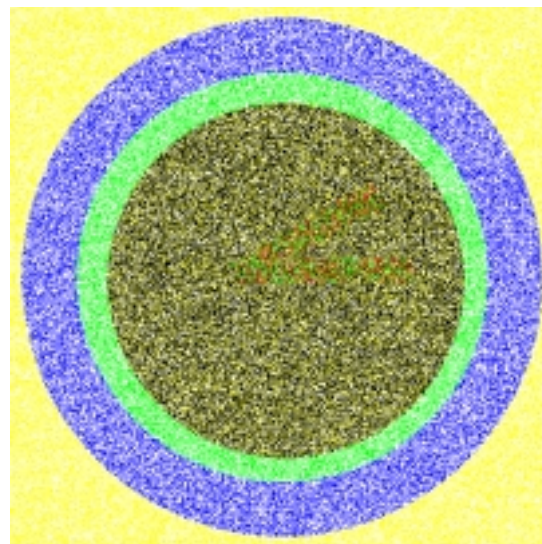
Svarsalt. Answer alt 18. c



Svarsalt. Answer alt 18. a

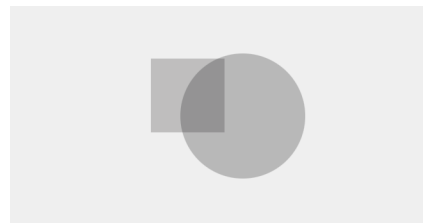


Svarsalt. Answer alt 18. d

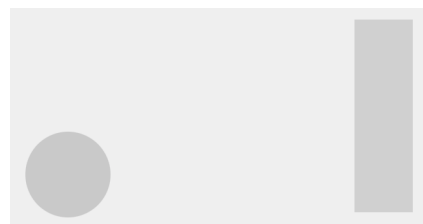


Svar. Correct answers

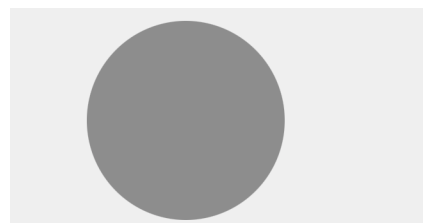
1. Alternativ 1b är rätt. En cirkel och en kvadrat vandrar över ytan. The alternative 1b is correct. One circle and one square are taking small steps over the surface.



2. Alternativ 2a är rätt. Tre cirklar och tre rektanglar vandrar över ytan samtidigt som de vrids. Men då de tagit det fjärde steget täcker figurerna varandra. The alternative 2a is correct. Three circles and three rectangles are taking small steps and turning over the surface. But when the figures has taken the fourth step they are covering each others.



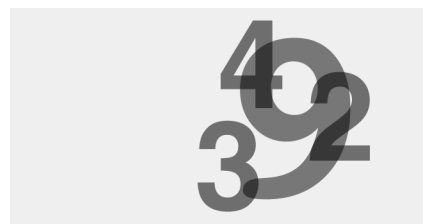
3. Alternativ 3c är rätt. En cirkel, en triangel och en rektangel vandrar över ytan samtidigt som de växlar höjd i en bestämd ordning. Då de tagit det fjärde steget täcker cirkeln de andra figurerna. The alternative 3c is correct. A circle, a triangle and a rectangle are taking small steps over the surface. At same time they are swift heights in a special order. When the figures has taken theirs fourth step the circle covers the other figures.



4. Det är flicknamn. Namnet börjar med stor bokstav, versal. Bokstäverna växlar i storlek. Enda rätta alternativet är 4a. They are all girls name. The name should start with a big letter, versal. All letters should also be different in size than others. 4a is the only correct alternative.



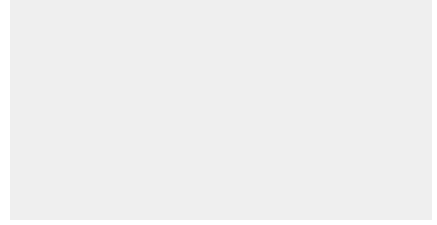
5. Addering av små siffror = en stor siffra. Adding small digits = a big digit.



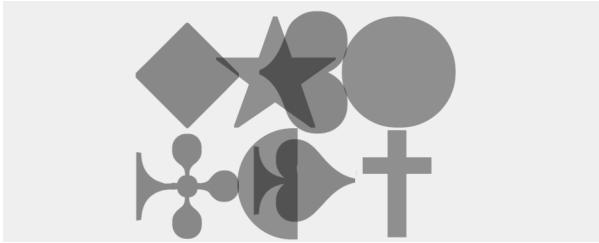
6. Alla bokstäver med bågar lutar en aning mot planet. Det är visat i lösningen som om bokstaven är ljusare i ena kanten och mörkare i den andra. All letters with arches are slopping to the surface. This is shown in the correct answer by let the letter be a little lighter on one side and darker on the other side.



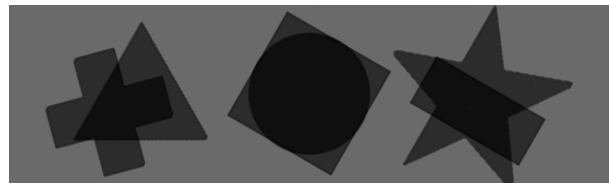
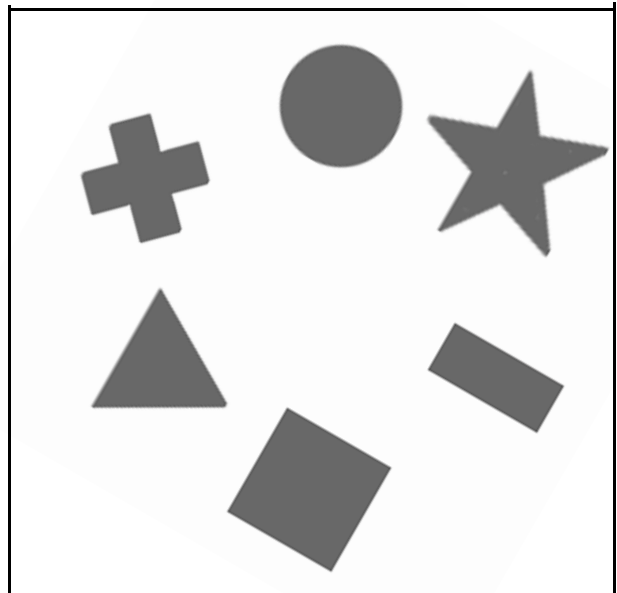
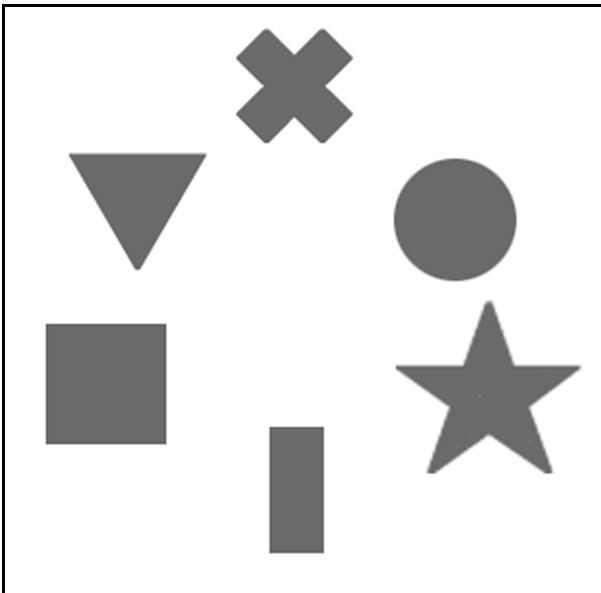
7. Alla siffror visar initialen till hur man skriver siffran med ord. Dessutom visas denna bokstav så många gånger som siffran anger. 1=E, 2=TT, 3=TTT, 4=FFFF, 5=FFFFF, 6=SSSSSS, 7=SSSSSSS o s v. Eftersom det är en tvåspråkig bok måste uppgiften stämma för bägge språken. Bland förslag på lösningarna är EEE, Z och OOOOO. Men dessa stämmer inte med något av de uppräknade koderna. Det återstår 0, som inte är med. Oavsett om det heter noll på svenska och zero på engelska ska bokstaven återges med 0 tecken. All digits are shown by initial letter how they are spelled. Also the shown quantity of letters are the same as the digit. 1=O, 2=TT, 3=TTT, 4=FFFF, 5=FFFFF, 6=SSSSSS, 7=SSSSSSS a s o. This must match for both languages. Among the alternatives for correct answer is EEE, Z and OOOOO. But none of those alternatives match what just shown. One alternative is left, 0, as we missed. But this digit is spelled noll in swedish and zero in english. But it doesn't matter, since the quantity of shown initial letters are 0.



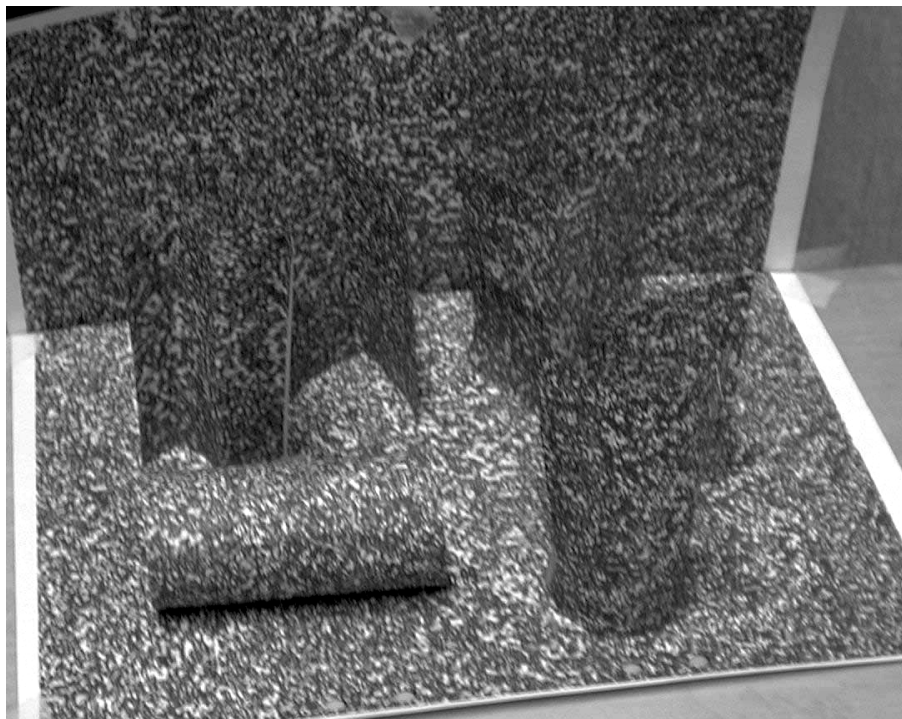
8. Alternativ d är rätt. Alternative d is correct.



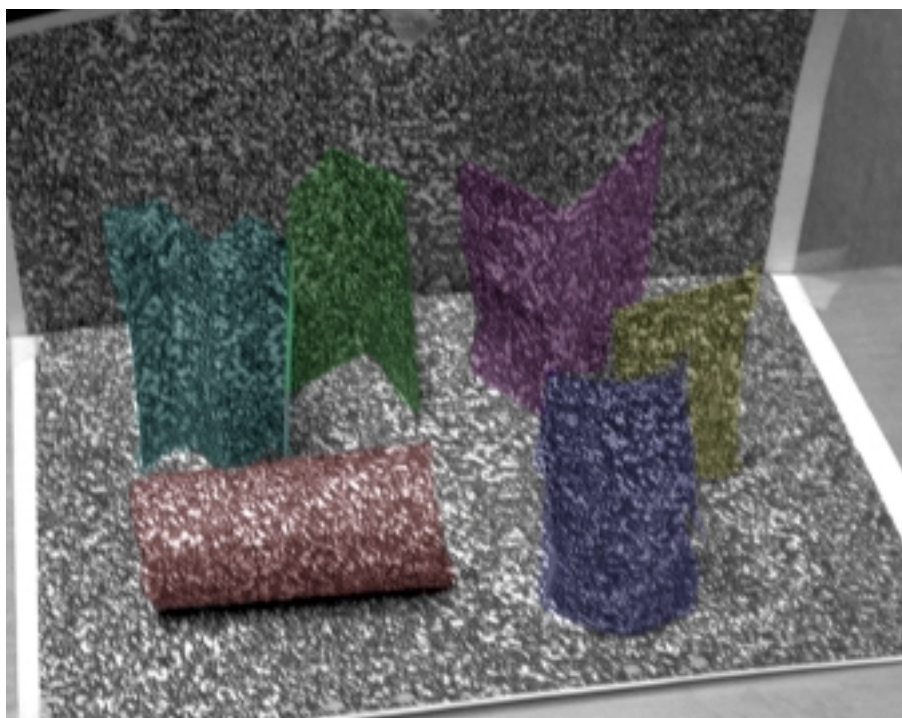
9. Det är 6 figurer, som går runt i en cirkel. För varje steg vrider sig figurerna allt mer: 30 - 60 - 90 - 120°. Alternativ a är rätt. There is 6 figures that mover around in a circle. At every step they moves the angle of turning increases: 30 - 60 - 90 - 120°. Alternative a is correct.



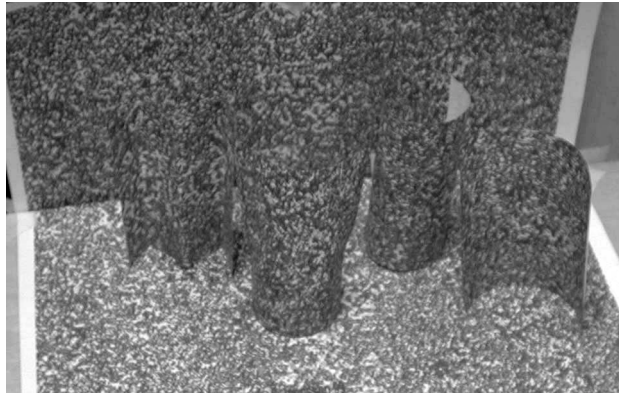
10. Sex tredimensionella figurer är uppställda i en cirkel. Varje figur är plan, veckad eller böckad. För varje steg skiftar två av figurerna plats: detta sker endast diagonalt. Rätt svar är alternativ a. Six 3D-figures are positioned in a circle. Every figure has a plan surface, is creased or has a cylindrical surface. At each step two figures swaps: this occur only diagonally. Correct answer is alternative a.



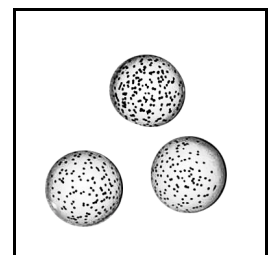
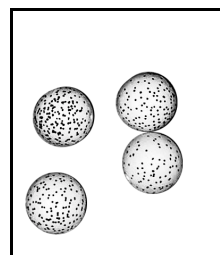
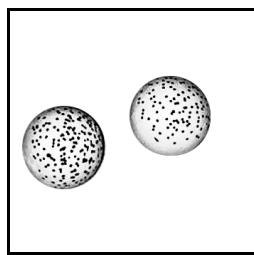
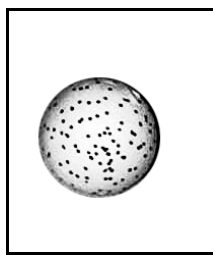
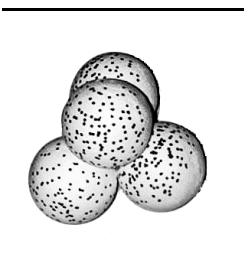
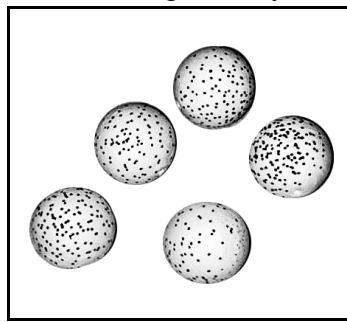
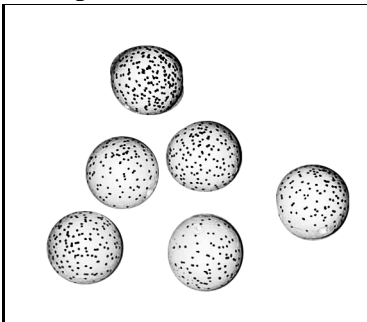
De sex figurerna syns kanske bättre om de är markerade med färger. Maybe the six figures appears better when they are a little bit coloured.



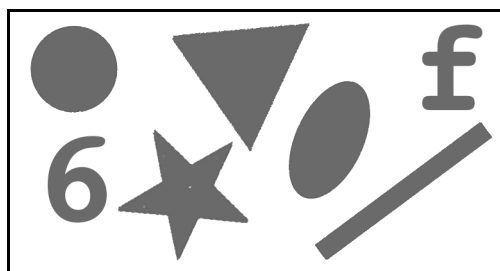
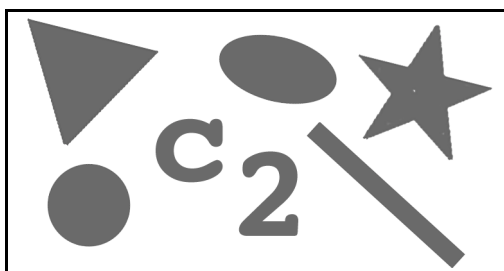
11. Första steget visar 2 cylindriska föremål. Andra steget visar 3 cylindriska föremål. Lösningen är 4 cylindriska föremål, alternativ c. The first step shows 2 cylindrical details. The second step shows 3 cylindrical details. Correct answer is 4 cylindrical details, alternative c



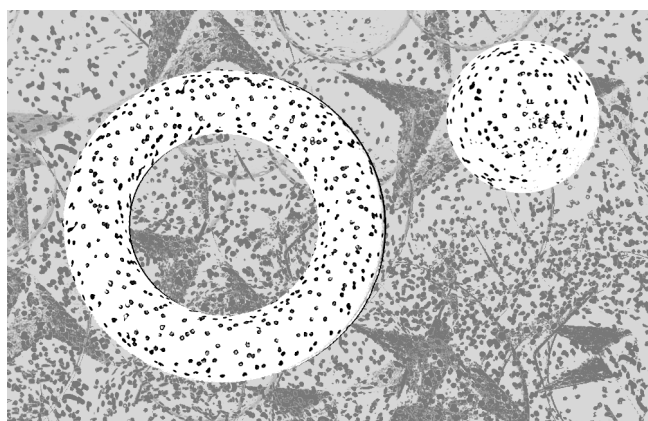
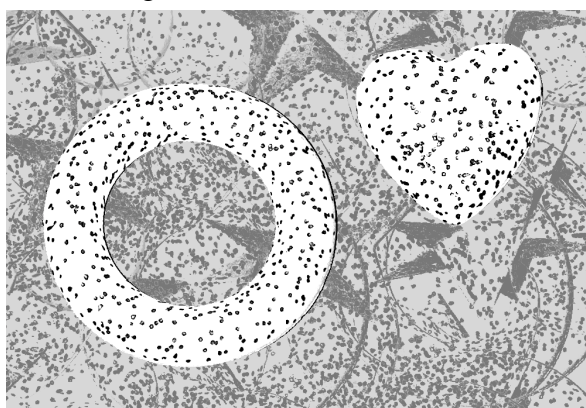
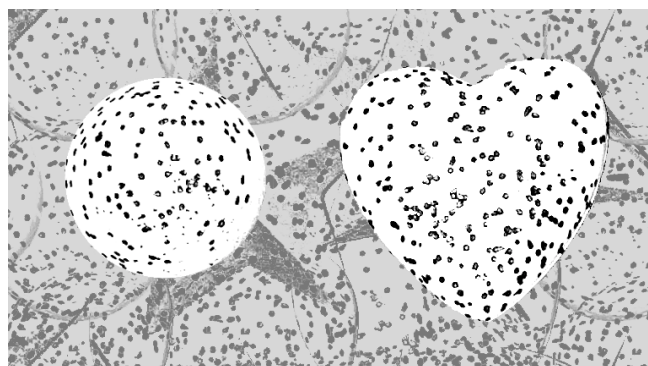
12. Figurerna visar 6 och 5 klot på en slät bakgrund. Det sökta svaret kan därför rimligen vara 4 klot. 12a visar 4 klot, men dessa är staplade som en pyramid. Ingen av de andra svarsalternativen visar staplade klot. Därför kan man anta att 12d är ett korrekt svar. The figures shows 6 and 5 balls. You may suppose that 4 balls is a correct answer, but 12a shows those 4 balls as a pyramid. Since all other pictures shows the balls direct on the ground, you may suppose that 12d is a correct answer.



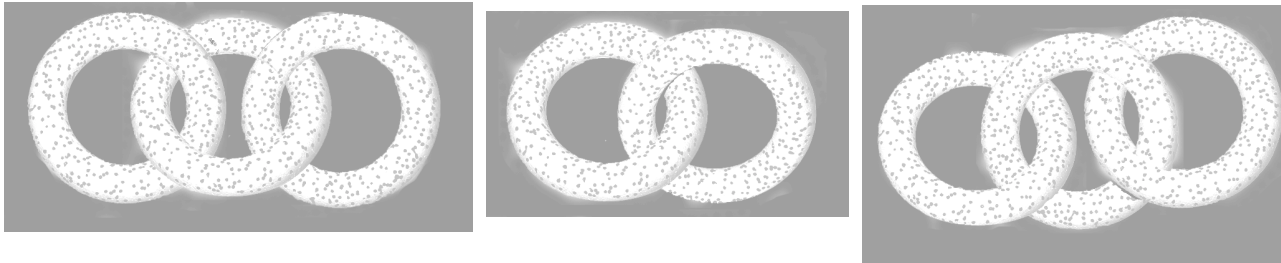
13. I varje uppgift finns det fem figurer, en bokstav och en siffra. Figurernas vridning, storlek och placering är slumpmässiga. Bokstäverna är c, e, f, L, s och t; siffrorna är 0, 0, 2, 3, 5 och 6. En slutsats är att en bokstav skulle stå för formen på en figur. Detta stämmer på både svenska och engelska: cirkel, ellips, linje, stjärna och triangel. Undantaget är f, svarsalternativ 13c. En annan slutsats är att siffrorna skulle stå för de hörnor figurerna har: 0 för ellips, 0 för cirkel, 2 för linje, 3 för triangel och 5 för stjärnan. Undantaget är 6, då ingen figur finns med 6 hörnor. Undantaget är åter 13c. There is five figures in every task. The position, size and turning of every figure is random. There are also one letter and a digit in every task. The letters are c, e, f, L, s and t; the digits are 0, 0, 2, 3, 5 and 6. One conclusion is that every letter starts the description of a figure. But this must match both in swedish and english - which it does. Circle, ellips, line, star and triangle. This does not match for alternative 13c, letter f. One other conclusion is that numbers corresponds to the corners in the figures: 0 = ellips, 0 = circle, 2 = line, 3 = triangle and 5 = star. The exceptions are once again 13c, digit 6, since there are no figures with six corners.



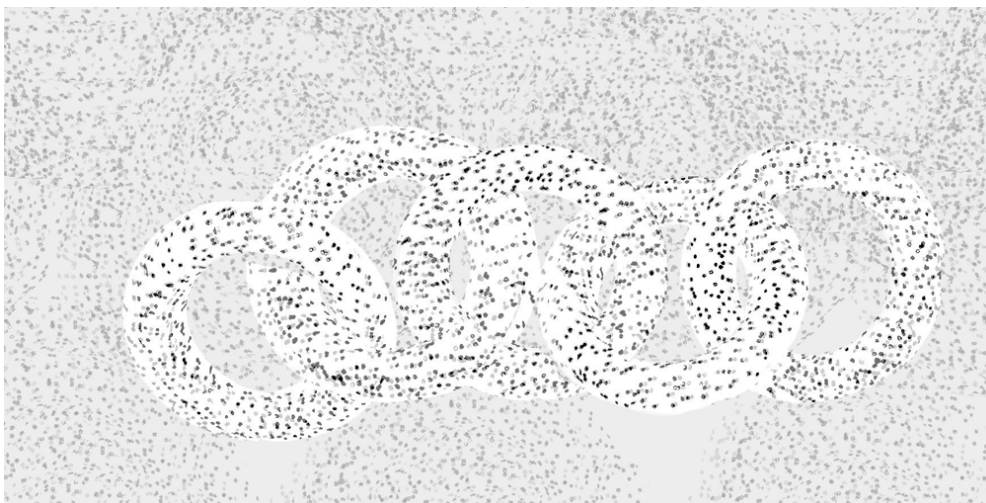
14. Två exempel visas. I varje exempel är det två 3D-figurer: boll + hjärta, ring + boll. Bland svarsalternativen är det också två 3D-figurer i varje bild, men här förekommer stjärnor. En slutsats är att alla 3D-figurer ska vara runda. 14b är då ett korrekt svar: ring + hjärta. Two examples are shown. In each example are two 3D-figures: ball + heart, ring + ball. Among the alternatives to answer the are also two 3D-figures in each picture, but here appears also stars. One conclusion is that all 3D-figures must be round shaped. 14b is in that case a correct answer; ring + heart.



15. Två exempel visas, där ringar är hoplänkade som en kedja. Bland svarsalternativen finns ringar som inte är hoplänkade, hopflätade eller optiskt förvrängda (där ringen optiskt går upp och ska gå över den andra, går den i själva verket under). 15d är det enda riktiga svaret. Two examples are shown, where rings are linked together as a chain. Among all the alternative to a correct answer are non linked rings, twisted, and optic illusions (where a part of a ring goes up it is supposed to go over the other ring - but goes below it instead). 15d is the only correct answer.



16. Här är ringarna igen, men det visas bara ett exempel. Även här ska ringarna bilda en kedja. Rätt svar är alternativ 16b. Here are those rings again, but now only one example is shown. Also here the rings must be linked to a chain. Correct answer is 16b.



17. Här finns bara ett exempel, vilket visar en omöjlig figur. 17b är ingen omöjlig figur alls, medan 17c visar en röra. Återstår 17a, som visar en omöjlig figur. Here is only one example, which shows an impossible figure. 17b is no impossible figure at all, while 17c shows a mess. 17a remain, which shows an impossible figure.

18. Den första klockan är 10:49:50. Visarna är lika tjocka, men ligger normalt med sekundvisaren överst och timvisaren nederst. På första bilden skymts timvisaren. På nästa bild är den 11:00:00. Här skymts minutvisaren. Det har gått 5 minuter och 10 sekunder mellan bilderna. Vid sådana här uppgifter kan det antingen gå normala eller dubbla tiden mellan varje steg, eller så kan visarna byta plats med varandra. 18a visar en klocka som är 11:05:10. Här syns tre visare. Eftersom det har gått 5 minuter och 10 sekunder till denna bild, är detta alternativ rätt. The first watch shows 10:49:50. The arms have equal widths, but are fitted normal, when the hour arm is near bottom and the second arm is on the top. At the first watch the hour arm is hidden. Next watch shows 11:00:00. Here are the minute arm hidden. 5 minutes and 10 seconds has elapsed. In tasks as this normal time or double time may elapsed between each picture. It also happens that arms swift. Alternative 18a shows a watch with the time 11:05:10. Now all 3 arms appears. Since 5 minutes and 10 seconds has elapsed also here, this must be the correct answer.