DSE212

Are you ready for DSE212?

Contents
1 Introduction
2 Previous study for DSE212
3 Exploring DSE212
4 Exploring your own skills
5 Exploring your responses Appendix: Exploring your number skills

1. Introduction

Interested in “exploring” psychology?

DSE212 is one of the core Level 2 modules when studying psychology at the Open University. The module covers a wide range of psychological theories, concepts and methods, and shows how they can be applied in various contexts – both by professional psychologists and by all of us in everyday life.

DSE212 will allow you to explore questions such as:

What made me who I am?

- Can I change who I am or is it fixed throughout my life?
- How do people learn?
- Why do some people remember things better than others?
- Are men and women really different?
- Why can I do more than one thing at once?
- Are my dreams true or just an illusion?

The module will provide you with the opportunity to learn about the evidence we, as psychologists, use to answer these types of questions.

As one student said:

“I am really pleased that I took the course and find what I learned from it to be relevant to my daily life.”

The information, materials and activities in this booklet are designed to help you to explore the types of skills and knowledge you will encounter in the module. This will allow you to decide for yourself, or with help from our Regional Support Staff, whether DSE212 is the module for you.
The activities in Section 4 have been specifically developed to enable you to examine your own skills and knowledge in relation to the type of activities you will undertake in DSE212. If you have studied previously with the Open University, or elsewhere at higher education level, these activities are likely to draw on some of the skills you already possess and that you will need during your DSE212 studies.

If you find the questions too difficult to understand or complete, it does not mean that you should not attempt DSE212. It suggests that you may benefit from some preparatory reading, skill development or study at Level 1 (such as the Level 1 modules outlined in Section 2) before commencing DSE212.

To get the most out of the materials, we suggest that you spend two or three hours working on the text and the questions. You will need exercise paper, writing pens, coloured or highlighter pens and a calculator.

2. Previous study for DSE212 Exploring psychology

As a Level 2 module DSE212 builds on the skills students should have acquired at Level 1 (for example, basic essay writing and numeracy skills).

If you are not familiar with the levels within a degree we have illustrated them in Figure 1.

*Figure 1* The different levels in undergraduate study

**Level 1**

Study at Level 1 offers you plenty of support with your module work and more tutorial help than at higher levels. Your tutor will give you feedback and guidance on your work to help you develop your understanding, and study habits. Level 1 aims to help you build confidence in your own abilities and establish a firm foundation for further study.

**Level 2**

Level 2 modules offer opportunities to extend and apply your knowledge and skills, and to look more critically at techniques, problems and issues in your chosen subject area e.g. psychology. In psychology the learning and assessment tasks will develop your communication skills further and introduce you to guided project work and report writing. Your module tutor will give you feedback on your work to help you develop your critical and analytical skills. Level 2 aims to build up your confidence and skills so that you become a more independent learner, able to identify and select appropriate information and use ICT tools.

**Level 3**

Level 3 modules build on the skills and knowledge at Level 2 to take a more specialist approach to your chosen subject e.g. psychology. The module materials will provide you with an in depth knowledge of the subject area and a critical understanding of the research methods used. In psychology the learning and assessment tasks will develop further your ability to put together reasoned arguments, critically analyse material and undertake project work. Your tutor will provide you with feedback on your work, but at Level 3 you will be expected to actively plan your study, review your progress, and improve your knowledge, understanding and skills to achieve your personal and/or career goals.
You are not expected to have any special knowledge of psychology to study DSE212, although we strongly recommend that you have studied at least 60 credits from our Level 1 modules to prepare yourself for studying DSE212 as it is a Level 2 module. We particularly recommend the combination of DD131 Introducing the social sciences – part 1 and DSE141 Discovering psychology for this purpose. (Many of our qualifications now require 60 credits of Level 1 study – but please check actual requirements for individual qualifications). If you feel you would benefit from a greater degree of preparation, you might also consider the combination of DD101 Introducing the social sciences and DSE141 Discovering psychology, which amounts to 90 credits of Level 1 study. The module materials, together with your personal tutor and the regional support team, will provide all the necessary information, materials and support to help you develop your psychological knowledge and skills.

3. Exploring DSE212

In this section you can explore where DSE212 fits as part of an Open University Degree Programme. It also introduces you to the different DSE212 module components.

Exploring DSE212 as part of an OU degree programme

DSE212 provides you with the core psychological skills on which you can build if you want to complete the BSc (Hons) Psychology Degree (code B07). This degree is recognised by the British Psychological Society (BPS) and will give you Graduate Basis for Chartered Membership (GBC) which will allow you to apply for Society accredited postgraduate courses.

DSE212 can be taken as part of a number of different awards. To find out more about these different awards and the psychology modules that you can study log on to www.open.ac.uk/programmes/psychology.

DSE212: Exploring the module content

The module also explores the scope of contemporary psychology and its historical roots, and assesses the role played by very diverse perspectives on understanding human behaviour and experience (see Figure 2).

The module has a number of different study materials. It is divided into different parts; each part has a different focus and approach and is supported by appropriate audiovisual material. You will study a range of psychological topics such as how we become who we are (identity), how we learn, aspects of human language and meaning, sex and gender and lifespan development.

One student commented about the module materials:

“As far as the resources go I think they are fantastic! The books are well written and presented in suitable reading chunks. I love the variety in DSE212, with different books, audio visual materials, which stops you from feeling that you are just piling through piles of texts but actively learning. I found the workbook and study guides very helpful.”
Figure 2  Major psychological perspectives

PSYCHOLOGICAL PERSPECTIVES
(Styles of psychological explanation that are affected by historical tradition that underpins their ideas and methods)

Figure 3  DSE212 module materials

Figure 3 illustrates the type of materials that support DSE212 and how they link together.
The Workbook and Study Guide

The workbook and study guide that accompany the main text provide a week-by-week guide linked to the study planner to support your studies. They will help develop your study skills, such as:

- using evidence
- planning and pacing independent work
- structuring an argument
- writing essays
- searching for and using source material.

The module books

The module books introduce you to and allow you to explore:

- Approaches and perspectives that are fundamental to psychology (see Figure 2)
- How the differing perspectives have been used in the investigation of a wide range of topics and to address “real-life” issues.

Research materials in DSE212

Specific reading materials have been prepared to support the research skills you will need to acquire to succeed in DSE212.

The materials will enable you to understand the range of research methods employed by psychologists to investigate questions in psychology.

You will learn how to design research projects, gather data, and, through a series of small steps, use the computer to help you make sense of the data.

The materials will support your learning of methods, your project work, and your report writing.

Multimedia resources

As shown in Figure 3 you will be provided with a series of audiovisual materials to support your study.

These resources will support particular parts of the module. They will enable you to study conceptual and historical issues and learn more about many of the psychologists mentioned in the module books. You will also be provided with, and shown how to use, software that will help you to analyse the data you collect in your projects.

Computer use and support

As it is necessary to use a computer to complete part of the work for DSE212, please do check the computer specifications required via the Study at the OU web pages (http://www3.open.ac.uk/study). Please note that the software supplied is designed to run using a Windows operating system and therefore may not run on a different operating system such as the one used by Apple Macintosh.
Assessment of the module

The module is assessed through six assignments. The module Assignment Booklet will give you advice about how to write these.

At the end of the module you will have an examination. To help you prepare for the examination you will be sent a specimen examination paper and a booklet to support your revision and examination strategies.

By the end of the module you should be able to:

- write psychological essays, research reports and complete other assignments drawing on evidence from theories and research presented in the module
- demonstrate knowledge of different theories, theorists and methods that are used within and across the different psychological perspectives.

One student’s view of the module and its examination was that it was:

“An interesting course covering loads of areas of psychology! There’s definitely something for everyone – from neuropsychology to the weird and wonderful ideas of Freud. I particularly liked the design of the final examination as it allows you to focus on the subject areas with which you are most confident – you don’t need to learn it all! For a Level 2 course, I did not find it too demanding or difficult, yet the difference in the depth of the material between Levels 1 and 2 is noticeable. I liked this feeling though – it felt like I was really getting into the subject.”

4. Exploring your own skills

The materials, your tutor and the Regional/National Support Staff will guide and support your learning and help you to develop the skills you will require to successfully complete DSE212. To give you a flavour of the types of skills you will use in DSE212, in this section we have developed some materials, activities and self assessment questions that you may like to try before you decide whether DSE212 is the right module for you. You can find the answers to the questions and activities in Section 5.

If you have any problems understanding or completing the activities and/or are still unsure about whether to register for DSE212, give the Adviser or Social Science Staff Tutor at your Regional/National Office a ring and they will be able to advise you.

Exploring methods

In DSE212 you will be introduced to quantitative methods (which measure and use numbers) and qualitative methods (which explore meanings, sometimes in relation to how individuals or groups construct and see the world).

Article 1 summarises the findings of a fictitious survey about the use of mobile phones in restaurants. Read the article and have a go at questions 1 to 3.
Article 1
Survey reveals that mobile phones are disliked by diners
75% of diners from a variety of restaurants across the country stated that they disliked people using mobile phones in restaurants. A survey carried out for the Central Telecommunications Research Organisation (CTRO) by SISTA has given the thumbs down to the use of mobile phones in restaurants.

250 people took part in the survey that was carried out from January to March of this year. 20 restaurants and hotels were involved.

28% diners said they would prefer mobile phones to be completely banned. A further 25% of diners stated that mobile phones should be turned off when eating another 33% of diners surveyed said that mobile phones should be turned to silent mode and that any phone calls should be taken outside the restaurant area. Only 12% of diners felt that they should be able to use a mobile phone at any time. 2% of diners said that it was an infringement of their civil liberties to stop them using their mobile phones at any time.

63% of restaurant staff were in agreement with the diners. 14% felt that mobile phones should be on silent mode and calls should be taken outside the restaurant area. 26% felt that mobile phones should be banned and 23% felt that mobile phones should be turned off.

34% of staff said that arguments caused by people using their mobile phones came second only to those caused by people who had had too much to drink.

Question 1: What type of method did the researchers use, qualitative or quantitative?

Question 2: Write a couple of sentences that summarise the key findings.

Question 3: Would you ban mobile phones on the basis of these findings? Write a couple of sentences to justify your answer

Article 2 documents one person’s thoughts and feelings about their mobile phone. The question they were asked to consider was:

*What does your mobile phone mean to you?*

Read the article and have a go at the questions 4 and 5.

Article 2
Reflecting on my mobile phone
I suppose I have a love-hate relationship with my mobile phone.

At first I resisted getting a mobile phone because I did not want to be a “poser” and I couldn’t see the point of them. Then when I was working away I got my first mobile phone which was big, bulky and heavy. I’m not one of these people who updates my phone each year. Chasing the newest, most sophisticated phone that can do everything is not something I am interested in. With me it would be a waste of time as I would never learn to use all its “gadgets” although I’m sure my grand daughter would soon run down my battery mastering them.

I have never played any games on the phone, chasing a snake around a 5 by 3 centimetre screen does nothing for me.

I never thought it would be true but my mobile phone has become an important part of my life, particularly my working life. There’s a kind of comfort in a mobile phone but
sometimes it means you can't escape and have no control over your life. People become worried when they cannot contact you.

I feel that I have to answer the phone. My son says just don’t answer it but there’s a type of guilt when I let it ring and don’t answer it. When I was first able to use my mobile phone abroad I thought it was great, but now I see it as burdensome especially when someone rings and is on the phone for hours even though you tell them you are on holiday. I also think I have lost my memory for telephone numbers. Before getting my mobile phone I could remember all of the important telephone numbers but now I just put them in my mobile phone so I never learn them. If I were to lose my mobile phone now it would be disastrous because some of my work telephone numbers are only in my mobile phone.

I often wonder what we did when we didn’t have mobile phones and we couldn’t access people immediately.

**Question 4**  What type of method did the researchers use, qualitative or quantitative?

**Question 5**  What key themes can you find in the reflection in Article 2? If you have time, jot down a few notes about your mobile phone (if you’ve got one) and what it means to you. Then examine the themes from your notes. Are they similar to the ones identified in Article 2? How do they differ?

**Exploring your number skills**

Using and interpreting tabular (information in tables) and graphical information is an essential skill in DSE212. Questions 6 - 10 allow you to examine your skills in interpreting graphical information.

Figure 4 shows a histogram of the amount of text messages different OU students made and received every month.

**Figure 4**  Fictitious text messaging survey results for OU student groups

![Histogram of text messages](image)

**Question 6:**  What age group of students most frequently use text messaging?

**Question 7:**  What age group of students least frequently use text messaging?
Question 8:  What is the total number of text messages for the two age groups of students who most frequently use text messages?

Question 9:  If people above 60 and below 30 were not included in the survey which age group would have the highest frequency of text messaging and how many text messages did they send?

Question 10:  Using the information in Figure 4, write a couple of sentences about the use of text messaging by different age groups of OU students.

If you are not sure about your number skills or would like to do a few more questions we have provided a numerical quiz in the Appendix.

Exploring essay writing

Essay writing is an essential skill in DSE212. For this you will need to understand the information presented in the module and be able to represent it in response to a question.

Essay titles often contain two different types of words – content words (words which indicate the subject matter of the essay) and process words (words that indicate what you have to do). It is important to distinguish between these.

Question 11:  Identify the process words in the essay titles below. They are all questions that have been used to assess students’ understanding of the content of DSE212.

- Give an account of any two theoretical approaches to the study of identity and explain the ways in which they are different.
- Discuss the extent to which human beings are determined by their early development experiences. Illustrate your answers using examples from Book 2, Chapter 1.
- Compare and contrast the ideas, assumptions and methods of two perspectives underpinning theories of language.
- To what extent can the four perspectives on sex and gender presented in Book 2, Chapter 3 be seen as offering conflicting accounts.

Question 12:  Finally, have a go at planning an essay yourself. Make notes and draw up a plan for the following question:

- Discuss the extent to which the rewards of being a part time student outweigh the problems.

5. Exploring your responses

In this section you will see that when you study psychology there can be a variety of responses to many of the questions we ask.

You will always need to be accurate when you read and extract figures from studies but, in order to make predictions or generalise from findings, you need to examine the study overall (e.g. was it ‘big’ enough, was it from a particular group, was it biased in any way). In DSE212 you will learn about all of these things.

Much of a psychologist’s work involves drawing evidence from existing studies. In their research, they will examine the data they collect and compare these with earlier
findings. They will also use a variety of methods to examine whether their findings can be applied to people in general.

In DSE212 you will learn that psychologists put together and use data and information in different ways. In some of the following answers we have shown the different ways in which the data contained in the questions in Section 4 could be presented.

**Question 1:** What type of method did the researchers use, qualitative or quantitative?

The method is **quantitative**. The researchers collected information from survey questions that allowed them to ‘count’ how many of the 250 diners/members of restaurant staff shared particular views about the use of mobile phones in restaurants. This gave the researchers numerical data which measured and used numbers that everyone could agree on.

**Question 2:** Write a couple of sentences that summarise the key findings

You could have included any or all of the information below. You may also have added the percentages up in different ways to describe the data. See how your findings compare with these.

250 people took part in the survey that was made up of diners and restaurant staff. 20 restaurants and hotels were involved. The article does not say how many diners and restaurant staff were included so we cannot put actual figures to the percentages.

Regarding diners:

a. 75% “disliked people using mobile phones in restaurants”.
b. 28% wanted mobile phones to be “completely banned from restaurants”.
c. 25% stated that mobile phones “should be turned off when eating”.
d. 33% said that “mobile phones should be turned to silent mode and that any phone calls should be taken outside the restaurant area”.
e. 12% felt that they should be able to use a mobile phone at any time.
f. 2% said that it was an infringement of their civil liberties to stop them using their mobile phones at any time.

You might have added up (e) and (f) to indicate that 14% of the diners agreed with the use of mobile phones in restaurants and hotels.

You may have added (b), (c) and (d) together to highlight the fact that 86% of diners felt that mobile phones should be ‘silent’ (i.e. 28% “banned”, 25% “turned off when eating’ and 33% “put on silent mode”).

Regarding restaurant staff:

a. 63% “agreed with diners”.
b. 14% felt that mobile phones should be on silent mode and calls should be taken outside the restaurant area.
c. 24% felt that mobile phones should be banned.
d. 12% felt that mobile phones should be turned off.
e. 34% said that arguments caused by people using their mobile phones came second only to those caused by people who had had too much to drink.

You might have added (b), (c) and (d) together saying that 50% of restaurant staff felt that mobile phones should be ‘silent’ in restaurants (14% “silent mode and calls should be taken outside the restaurant area”, 24% “banned” and 12% stating that “phones should be turned off”).
Question 3: Would you ban mobile phones on the basis of these findings? Write a couple of sentences to justify your answer

The survey indicates that the majority (over 50%) of diners and restaurant staff felt that mobile phones should be ‘silenced’ in restaurants and hotels. However, only 28% of diners and 24% of restaurant staff felt they should be banned so based on the survey banning mobile phones was not supported by the data collected.

You might have added something about the number of people and hotels/restaurants involved, for example, that more people and/or restaurants/hotels should have been involved.

You may also have said something about the time of the survey, January to March. This is a time of year which may attract a different type of clientele than, for example, over the summer period where the survey may have attracted a wider audience when holiday makers are more likely to be eating out.

Finally, you might have said that you needed more information about the hotels and restaurants; for example, we do not know whether the hotels and restaurants were all expensive places to eat. If so, the people who responded could be narrower than if a wide variety of hotels and restaurants were used.

All of the above would be valuable in considering whether you would ban mobile phones on the basis of the findings.

Question 4: What type of method did the researchers use, qualitative or quantitative?

Qualitative because it explores what someone’s mobile phone means to them.

Question 5: What key themes can you find in the reflection in Article 2? If you have time, jot down a few notes about your mobile phone (if you’ve got one) and what it means to you. Then examine the themes from your notes. Are they similar to the ones identified in Article 2? How do they differ?

Three themes were identified in the reflection in Article 2:

1. Love-hate relationship (or ambivalence perhaps) as shown in the initial sentence and in other parts of the reflection such as:
   “There’s a kind of comfort in a mobile phone but sometimes it means you can’t escape and have no control over your life”
   and in the reference to the use of the mobile phone abroad:
   “When I was first able to use my mobile phone abroad I thought it was great, but now I see it as burdensome”.

2. Importance to work, as illustrated in:
   “I never thought it would be true but my mobile phone has become an important part of my life, particularly my working life”
   and
   “If I were to lose my mobile phone now it would be disastrous because some of my work telephone numbers are only in my mobile phone”.

3. Using a mobile phone as a phone, as demonstrated in:
   “Chasing the newest, most sophisticated phone that can do everything is not something I am interested in”
   and
   “I have never played any games on the phone, chasing a snake around a 5 by 3 centimetre screen does nothing for me”.
Did you identify the same themes? If your themes differ but relate to the reflection and you are able to justify them with quotes from the text they are equally acceptable. You will learn more about this type of data and analysis in DSE212.

If you have time jot down some notes about what your mobile phone means to you. Are the themes in your reflection the same or different? In comparing the two reflections you can start to build up a picture of the meaning of mobile phones to different people.

**Question 6:** What age group of students most frequently use text messaging?

18-30 years.

**Question 7:** What age group of students least frequently use text messaging?

41-50 years.

**Question 8:** What is the total number of text messages for the two age groups of students who most frequently use text messages?

310 text messages.

(The two age groups of students who most frequently use text messages are the 18-30 year olds (190) and the 31-40 year olds (135) giving a total of 325 text messages).

**Question 9:** If people above 60 and below 30 were not included in the survey which age group would have the highest frequency of text messaging and how many text messages did they send?

31-40 year olds with 135 text messages.

(As the age group that most frequently used text messages was 18-30 year olds taking this group away would leave the 31-40 year olds with 135 messages)

**Question 10:** Using the information in Figure 4, write a couple of sentences about the use of text messaging by different age groups of OU students.

Your sentences should have included the following information but you may have presented it in different ways e.g. you may have grouped (1) and (2) together as ‘younger’ age groups using text messaging ‘the most’, or you may have grouped (4) and (5) together as ‘mid aged’ groups who use text messaging ‘the least’.

(1) to (5) show the frequency of text messaging used across the different age groups, starting with (1) the most frequent users to (5) the least frequent users.

1. The 18-30 year age group (190 text messages).
2. The 31-40 year old age group (135 text messages).
3. The 60+ age group (60 text messages).
4. The 51-60 year old age group (40 text messages).
5. The 41-50 year olds (20 text messages).

**Question 11:** Identify the process words in the essay titles below. They are all questions that have been used to assess students’ understanding of the content of DSE212.

The process words are underlined:

- **Give an account of any two theoretical approaches to the study of identity and explain the ways in which they are different.**
- **Discuss the extent to which human beings are determined by their early development experiences. Illustrate your answers using examples from Book 2, Chapter 1.**
Compare and contrast the ideas, assumptions and methods of two perspectives underpinning theories of language.

To what extent can the four perspectives on sex and gender presented in Book 2, Chapter 3 be seen as offering conflicting accounts.

Question 12: Finally, have a go at planning an essay yourself. Make notes and draw up a plan for the following question:

Discuss the extent to which the rewards of being a part time student outweigh the problems.

Obviously the rewards you identify will be personal, but they may include some of the following:

- career change
- intellectual stimulation kept because not studying all the time
- able to keep a job at the same time
- motivating
- not as expensive
- flexibility of studying in own time and in own home.

The problems you might have identified could have included:

- time consuming
- planning is essential
- may miss the social aspects of full time study – lone study
- balancing study with other commitments
- having to be disciplined
- takes longer to complete.

One of the skills you will develop on DSE212 is to be able to organise the material you use in response to assignment question into a logical order. When completing DSE212 essays you will be given advice about the specific module materials to use within your essays.

The plan for your essay should identify the rewards and problems and indicate the extent to which you consider that the rewards of being a part time student outweigh the problems. Table 1 shows a possible structure for your essay plan.

Table 1 Possible structure for the essay plan

<table>
<thead>
<tr>
<th>Section</th>
<th>Possible content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction:</td>
<td>A beginning paragraph which outlines how you will answer the question and which signposts the reader through your essay.</td>
</tr>
<tr>
<td>Main Body/Development:</td>
<td>This section will contain a series of paragraphs linked together and presented in a sensible order, that:</td>
</tr>
<tr>
<td></td>
<td>- identify the main points you wish to make about the rewards and problems of being a part time student</td>
</tr>
<tr>
<td></td>
<td>- give evidence/examples for the rewards and problems</td>
</tr>
<tr>
<td></td>
<td>- build an argument that illustrates the extent to which (how much and in what way), the rewards outweigh the problems of being a part time student</td>
</tr>
<tr>
<td>Conclusion:</td>
<td>Summary of argument and/or a concluding statement which clearly indicates the extent to which you consider the rewards of being a part time student outweigh the problems</td>
</tr>
</tbody>
</table>
Registering on DSE212

If you are now sure that DSE212 is the module for you, to make sure you get a place on the module, it’s a good idea to register as early as possible:

1. online at http://www.open.ac.uk/study.
2. by calling our hotline 0845 300 6090 (if you already have an Open University personal identifier, please quote it when you call)

If, after working through these activities (and the ones in the Appendix), you are still unsure whether DSE212 is the right module for you, we advise you to seek further help and advice from an Adviser or from a Social Science Staff Tutor at your Regional/National Office.
Appendix

Exploring your number skills

You will not have to carry out any complicated mathematical calculations in DSE212. However, it is useful if you are familiar with some mathematical terms and able do some basic calculations. This appendix gives you an opportunity to examine your basic calculation skills which you can do with or without a calculator.

Question 1: 3 + 63 + 42 =
Question 2: 26 + 95 + 1062 =
Question 3: 1265 - 347 =
Question 4: 10,689 + 938 - 546 =
Question 5: 26 - 52 =
Question 6: 95 + 42 - 234 =
Question 7: 93 multiplied by 53 =
Question 8: 569 divided by 34 =
Question 9: 671 multiplied by 45 =
Question 10: In mathematics we use symbols and notation to express ideas concisely. Work out the numerical values of the following:
   a. \( \sqrt{49} \)     b. 32     c. 24     d. 43     e. 0.92

Question 11: Write down 7 ¾ and 7% as decimals.
Question 12: Write 35% and 0.05 as fractions.
Question 13: Write 0.8 and 5/25 as percentages.
Question 14: Round up the following to two decimal places:
   a. 0.356     b. 85.2597     c. 325.5234     d. 1067.5439     e. 10,000.0152

Question 15: If 75 people out of a survey of 140 people were unhappy with their mobile phones, what percentage of people would be unhappy?

Question 16: If 260 people took an examination and 5% of people failed, how many people failed and how many people passed?

Question 17: If someone scores 36 out of 76 on a mobile phone game, what would their percentage score be, to 2 decimal places?

Question 18: What is the average score if the scores on a test are: 25, 36, 82, 22, 54, 48, 92, and 15?

Question 19: If your mobile phone company gives you 200 minutes free time every 4 weeks and you use your phone 12 minutes per day, how much time will you be over or under your free time?

Question 20: If £124 went into the bank and the person made out cheques for £25 at the supermarket; £30 cash for going out; £24 for travel; £52 for a new mobile phone and £24 for clothes, what would their balance be:
   a. if they made out all of the cheques?
   b. if they took back the mobile phone and got a refund?
   c. if they only drew out £10 for going out and did not draw out their travel money?
SOLUTIONS

Question 1: 3 + 63 + 42 = 108
Question 2: 26 + 95 + 1062 = 1183
Question 3: 1265 - 347 = 918
Question 4: 10,689 + 938 - 546 = 11081
Question 5: 26 - 52 = -26
Question 6: 95 + 42 - 234 = -97
Question 7: 93 multiplied by 53 = 4929
Question 8: 569 divided by 34 = 19.74 (rounded to 2 decimal places)
Question 9: 671 multiplied by 45 = 30195
Question 10: In mathematics we use symbols and notations to express ideas concisely. Work out the numerical values of the following
   a. \( \sqrt{49} = 7 \)  b. 32 = 9  c. 24 = 16  d. 43 = 64  e. 0.92 = 0.81
Question 11: Write down the 7¼ and 7% as decimals
   7¼ = 7.75 and 7% = 0.07
Question 12: Write 35% and 0.05 as fractions
   35% = 7/20 and 0.05 = 1/8
Question 13: Write 0.8 and 5/25 as percentages
   0.8 = 80% and 5/25 = 20%
Question 14: Round up the following to two decimal places
   a. 0.356 = 0.36  b. 85.2597 = 85.26  c. 325.5234 = 325.52  
   d. 1067.5439 = 1067.54  e. 10,000.0152 = 10,000.02
Question 15: If 75 people out of a survey of 140 people were unhappy with their mobile phones, what percentage of people would be unhappy?
   54% (rounded up to the nearest whole number).
   This was calculated by dividing the actual number of people (75) by the total number of people (140) and multiplying the result by 100 (or you might have used the % key on your calculator).
Question 16: If 260 people took an examination and 5% people failed, how many people failed and how many people passed?
   247 passed and 13 failed.
   This was calculated by dividing the number of people who took the examination (260) by 100, multiplying this by 5 (the 5%) for the people who failed, then taking 13 away from 260 to give the number of people who passed.
Question 17: If someone scores 36 out of 76 on a mobile phone game, what would be their percentage score to 2 decimal places?
   47.37%.
   This was calculated by dividing the actual score (36) by the total score (76) and multiplying the result by 100 (or you might have used the % key on your calculator) giving a total of 47.26842. This was then rounded to 2 decimal places by looking at whether the figure at the third decimal place was above or below 5 (if 5 or above the
figure at the 2nd  would be rounded up to the next figure (i.e. 47.37) if below the figure at the 2nd decimal place would remain the same (i.e. 47.36) ). As the figure at the third decimal place was 8 (47.268) the 6 was rounded up to 7, giving a total of 47.37 to 2 decimal places.

**Question 18:** What is the average score if the scores on a test are: 25, 36, 82, 22, 54, 48, 92, and 15?

46.75

This was calculated by adding the scores together (374) and dividing the total by the number of scores listed (i.e. 8).

**Question 19:** If your mobile phone company gives you 200 minutes free time every 4 weeks and you use your phone 12 minutes per day, how much time will you be over or under your free time?

136 minutes over your free time

This was calculated by multiplying the 4 weeks by 7 to give the number of days across the 4 weeks (i.e. 28 days); multiplying the 28 days by 12 minutes to calculate the number of minutes you have used (i.e. 336 minutes) and finally subtracting the 200 free minutes from total minutes used (336 – 200 =136 over your free time).

**Question 20:** If £124 went into the bank and the person made out cheques for £25 at the supermarket; £30 cash for going out; £24 for travel; £52 for a new mobile phone and £24 for clothes, what would their balance be:

a. if they made out all of the cheques? = - £31
b. if they took back the mobile phone and got a refund? = £21
c. if they only drew out £10 for going out and did not draw out their travel money? = £13

The calculations were:

a) This was calculated by adding together the amount for the cheques made out (i.e. £25 at the supermarket + £30 cash for going out + £24 for travel + £52 for a new mobile phone + £24 for clothes = £155) and subtracting the £155 from the £124 giving a minus balance of £31 (therefore a negative figure of -£13 is the answer)

b) This was calculated by adding together the amount for all cheques barring the one for the mobile phone (i.e. £25 at the supermarket + £30 cash for going out + £24 for travel + £24 for clothes = £103) and subtracting the £103 from the £124 giving a balance of £21

c) This was calculated by adding together the amount for all cheques barring the one for the travel money and using only £10 for going out (i.e. £25 at the supermarket + £10 cash for going out + £52 for a new mobile phone + £24 for clothes = £135) and subtracting the £111 from the £124 giving a balance of £13