

Numeracy Practice Test

(What is on this test is assumed knowledge for the course)

(you will be asked similar questions under exam conditions)

(Include all workings)

(Marks can be deducted for confusing or lack of workings)

(Incomplete solutions can still be awarded marks)

Please calculate the following (express your solutions in simplest form, if appropriate):

1. $\frac{1}{5} + \frac{3}{8} =$ (2)

2. $\frac{7}{9} - \frac{1}{4} =$ (2)

3. $\frac{4}{5} \times \frac{6}{9} =$ (2)

4. $\frac{4}{6} \div \frac{1}{3} =$ (3)

5. Express the following in simplest form

$\frac{9}{24}$ (2)

6. Write the following as an improper fraction

$3\frac{1}{4}$ (3)

7. Write the following as a mixed number

$\frac{23}{7}$ (2)

8. Write 0.0314 as a fraction (2)

9. Calculate the following and express as a mixed number

$$1\frac{1}{4} + 2\frac{2}{5} = \quad (6)$$

10. What is $\frac{8}{10}$ expressed as a percentage? (2)

11. A student scores 24 out of 45 on a test. What is this as a percentage to the nearest whole number? (3)

12. What is 40% of £300? (2)

13. A bank offers 5.5% annual interest. You start with a balance of £200. What will the balance be in a years time? (3)

14. A bank offers 5% annual interest. You start with a balance of £200. Interest is paid annually, so what will the balance be in 2 years time? (4)

15. A television costs £235 including VAT. What is the price excluding VAT? (5)

16. Round the following numbers to the nearest whole digit

a) $13.4 =$ (1)

b) $7.49 =$ (1)

c) $-89.9 =$ (1)

d) $0.4999 =$

(1)

17. Round the following numbers to 2 decimal places.

a) $2.459 =$ (1)

b) $259.3476 =$ (1)

c) $12.008 =$ (1)

d) $12.798 =$ (2)

e) $12.998 =$ (2)

18. Present the follow numbers to 3 significant figures.

a) $3.1456 =$ (1)

b) $32156 =$ (1)

c) $-329.45 =$ (1)

d) $0.03995 =$ (3)

19. What is the smallest number to 2 decimal places that can be rounded to 20? (1)

20. What is the largest number to 2 decimal places that can be rounded to 20? (1)

21. What is the largest possible difference between 10 & 20 to 2 decimal places? (3)

Please solve the following equations to find a value for x. Where appropriate, present your answers to 2 d.p.

22. $2x = 6 + x$ (2)

23. $3x^2 - 7 = -4x^2 + 42$ (5)

24. $\frac{1}{2}x = \frac{2}{3}x + 7$ (5)

25. $4x(x + 2) = 8x + 8$ (5)

26. $20 = \frac{60 + 15x}{2+x}$ (5)

27.

a) Make y the subject

$$y + x = 8 \quad (2)$$

b) Make z the subject

$$20 = 3x + z \quad (3)$$

c) Solve for x using your solutions from above.

$$y + z = 30 \quad (4)$$

d) Using your solution for x from part c. What is y from part a? (2)

e) Using your solution for x from part c. What is z from part b? (2)