

Year 9 - Worksheet 9

NUMBER APPLICATIONS

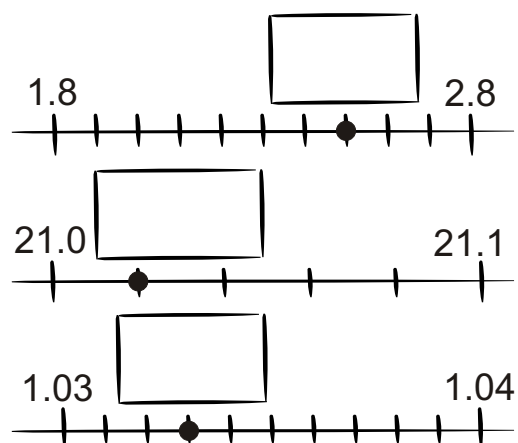
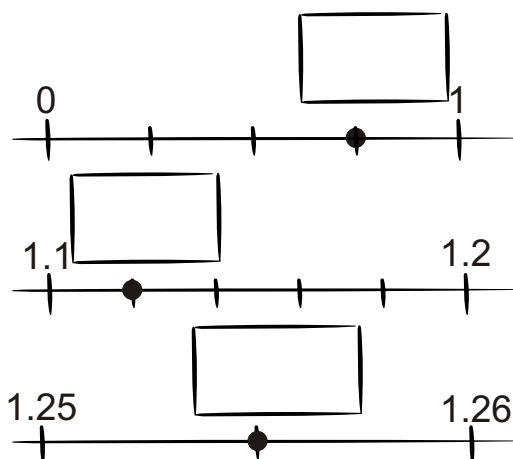
1. Jill brought gifts for a party. She went to 5 shops and spent the following.

\$ 18.50 in Smiggles
\$ 7.35 in Countdown
\$ 11.93 in Whitcoulls
\$ 33.85 in Just Jeans
\$ 41.07 in You Beauty

If she started off with \$150, how much would she have left?

2. A father tells his daughter that she can either have her inheritance of \$100,000 or she can have 1c and then each day he will give her double the previous days money all through February for a total of 28 days. Which should she choose and why?

3. Look at each number line and write down the value that each point represents.



ESTIMATION

Some calculators do not have a square root key however you can still calculate the square root of a number by using the multiplication key and estimation.

e.g. $\sqrt{17}$ this is very close to $\sqrt{16}$

$$4.1^2 = 16.81$$

$$4.11^2 = 16.89$$

$$4.12^2 = 16.97$$

$$4.121^2 = 16.9882$$

$$4.122^2 = 16.991$$

$$4.123^2 = 16.9991 \text{ this is a good approximation of } \sqrt{17} \text{ to 3 DP}$$

Without using the square root key on a calculator try and find the following square roots to 3 decimal places.

1. 11

2. 37

3. 6

4. 37

PUZZLE

Place the digits 1, 2, 3, 4, 6 and 9 into the squares so that the multiplication problem is correct.

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SUDOKU

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|---|---|---|---|---|---|---|---|---|
| | | 7 | | | | | | 3 |
| | 6 | 2 | | 1 | | | | 8 |
| 4 | | 5 | | | 7 | | | |
| | 2 | | 9 | 7 | | | | |
| | 5 | 9 | | | | 2 | 7 | |
| | | | | 6 | 4 | | | 3 |
| | | | 3 | | | 1 | | 7 |
| 8 | | | | 2 | | 3 | 5 | |
| 2 | | | | | | 4 | | |

NUMERACY STRATEGIES - ADDITION

Addition can be easier if you break down the numbers into powers of 10.

e.g. $27 + 42 = 20 + 7 + 40 + 2 = 60 + 9 = 69$ Sum = 69

1. $43 + 56$

2. $17 + 82$

3. $34 + 55$

4. $132 + 65$

5. $153 + 35$

6. $112 + 42$

7. $215 + 23$

8. $1410 + 305$

9. $2715 + 1272$

10. $1731 + 2256$

DECIMAL SUMS

Calculate the decimal sums.

1. $3.7 + 2.2 =$ _____

2. $4.5 + 6.3 =$ _____

3. $5.5 + 6.3 =$ _____

4. $15.7 + 13.2 =$ _____

5. $12.03 + 0.66 =$ _____

6. $3.7 + 4.5 =$ _____

7. $4.7 + 8.6 =$ _____

8. $7.7 + 8.8 =$ _____

9. $12.45 + 1.66 =$ _____

10. $14.06 + 1.97 =$ _____

INVESTIGATION

Complete these calculations.

1. $35 \square 64 = 99$

2. $60 \square 15 = 4$

3. $75 \square 60 = 15$

4. $999 \square 337 = 666$

5. $22 \square 41 = 63$

6. $19 \square 3 = 57$

7. $121 \square 11 = 11$

8. $7 \square 63 = 441$

9. $225 \square 25 = 9$

10. $141 \square 3 = 138$

NUMERACY STRATEGIES - DIVISION

Division can be easier if you find the same fractions of the original numbers.

$$\begin{aligned} \text{e.g. } 64 \div 16 &= 32 \div 8 \\ &= 16 \div 4 \\ &= 8 \div 2 \\ &= 4 \end{aligned}$$

Try these divisions by using the above method.

1. $92 \div 4$

6. $384 \div 16$

2. $112 \div 8$

7. $192 \div 8$

3. $128 \div 4$

8. $84 \div 6$

4. $180 \div 4$

9. $288 \div 8$

5. $336 \div 8$

10. $150 \div 6$

QUICK QUESTIONS

Use any strategy except for a calculator.

1. $153 + 47 =$ _____

6. $\$13.15 \times 3 =$ _____

2. $111 - 97 =$ _____

7. $\$1.52 \div 4 =$ _____

3. $43 \times 7 =$ _____

8. $\frac{1}{7} + \frac{2}{7} =$ _____

4. $125 \times 10 =$ _____

9. $83c + 17c =$ _____

5. $141 \div 3 =$ _____

10. $\frac{1}{2}$ of $\frac{1}{8} =$ _____