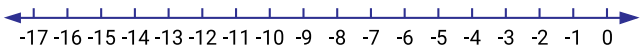
Year 8 Class 1-4 questions

Q1

Use the number line to help answer.

$-17 + 17 =$ ☐ 0



Q2

$7 - (-8) =$ ☐

15

Q3

$25 - 3 \times (2 + 6) =$ ☐ 1

Q4

$6 \times (3^2 - 5) =$ ☐ 24

Q5

$16 + 14 \div -2 \times (7 - -1) =$ ☐ −40

Q6

Arrange in ascending order.

☐ ☐ ☐ ☐

0.109 0.45 $\frac{1}{2}$ 0.98

0.98 0.45 $\frac{1}{2}$ 0.109

Q7

Round off 87.1126 to 3 decimal places.

87.1126 = ☐ (3 d.p.) 87.113

Q8

$115 - -3 \times -9 =$ ☐

88

Q9

$\frac{897 \div 39 \times 2}{299 \div 13} =$ ☐

2

Q10

$\sqrt{8.1 \times 0.1} =$ ☐

0.9

Q11

$-8 + (-7) =$ ☐ −15

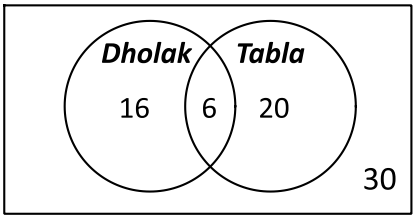
Q12

$[7 \times -2 + -1] \div -3 =$ ☐

5

Q13

Mr Krishna's music students were asked what instruments they play.



How many of those who play tabla also play Dholak? [ ] 6

What percentage of those who play Dholak also play tabla? [ ] % (1 d.p.) 27.3%

Find the probability a student chosen at random plays both Dholak and tabla?

[ ]/[ ] $\frac{1}{12}$

Q14

32 students are in a class. 18 own a cat, 8 own both a dog and a cat and there are 5 who own neither. Complete the table.

	Dog	No dog	Total
Cat	8	[ ] 10	[ ] 18
No Cat	[ ] 9	5	[ ] 14
Total	[ ] 17	[ ] 15	32

How many own a dog? [ ] 17

What percentage of cat owners also own a dog? [ ] % (1 d.p.) 44.4%

Q15

Three cards labelled 1, 2 and 3 are placed in a hat. Two cards are drawn out one at a time and placed next to each other to form a two digit number.

What is the probability that the number formed is 12?

[ ]/[ ] $\frac{1}{6}$

What is the probability that the number formed contains a 3?

[ ]/[ ] $\frac{2}{3}$

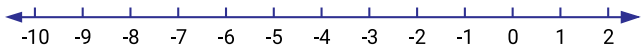
What is the probability that the number formed is even?

[ ]/[ ] $\frac{1}{3}$

Q16

Use the number line to help answer.

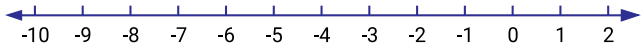
$-3-5=$ [ ] −8



Q17

Use the number line to help answer.

$-3-7=$ [ ] −10



Q18

$-6+(-10)=$ [ ]

-16

Q19

$-8+(-20)=$ [ ]

-28

Q20

$\frac{38-18}{2\times6\div3}$ = ☐ 5

Q21

$2\times\{18\div(7-4)\}$ = ☐ 12

Q22

$[2^3+4^2]\div(9-3)$ = ☐ 4

Q23

$[(11-5)\times2]^2-6$ = ☐ 138

Q24

Fill in the missing number that makes this number sentence correct.

$-6-(\square\times-2)=-12$ $-6-(-3\times-2)=-12$

Q25

Fill in the missing number that makes this number sentence correct.

$(-12-\square)\div-3=3$ $(-12--3)\div-3=3$

Q26

Arrange in ascending order.

☐ ☐ ☐ ☐

0.952 1.1 $1\frac{3}{5}$ $1\frac{3}{5}$ 1.75

Q27

Arrange in ascending order.

☐ ☐ ☐ ☐

$1\frac{7}{10}$ $1\frac{1}{4}$ 1.2 $1\frac{7}{10}$ 1.864 $1\frac{1}{4}$

Q28

Round off 17.663 to the nearest whole number.

17.663 = ☐
(nearest whole no.) 18

Q29

Round off 88.1126 to the nearest hundredth.

88.1126 = ☐
(nearest hundredth) 88.11

Q30

$(-12+-6)\times-16$ = ☐
288

Q31

$(26+-13)\times4\div(6+-4)$ = ☐
26

Q32

$\frac{38.5+(2.6-1.3)}{(842-36)\times0.1}$ = ☐ (1 d.p.)
0.5

Q33

$\frac{(26.8+13.3)\div(3.1+2)}{14.7\times0.5}$ = [ ] (1 d.p.)

1.1

Q34

$\left(\frac{178\div8}{1.8+0.7}\right)^2$ = [ ]

79.21

Q35

$16^2-4\times8$ = [ ]

224

Q36

-12 + (-15) = [ ]

-27

Q37

Find the missing number that makes this number sentence correct.

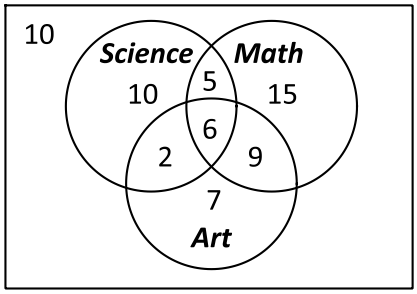
-5 – [ ] × 3 = -2

-1

-1 1 -3 -2

Q38

Students in class were asked which subject they like.



How many like both Science and Mathematics? [ ] 11

What percentage like all three subjects?

[ ] % (1 d.p.) 9.4%

How many like both Art and Science but not Mathematics?

[ ] 2

Q39

A travel company offers 15 tours. 9 of the tours include mountain climbing, 7 include diving and 5 tours include both mountain climbing and diving. Complete the table.

	Mountain Climbing	No Mountain Climbing	Total
Diving	[ ] 5	[ ] 2	[ ] 7
No Diving	[ ] 4	[ ] 4	[ ] 8
Total	[ ] 9	[ ] 6	[ ] 15

How many tours include mountain climbing but not diving? [ ] 4

What percentage of the diving tours also include mountain climbing?

[ ] % (1 d.p.) 71.4%

Q40

A box contains two pink cricket balls and one red cricket ball. Isaac is given one ball from the box which he keeps and then Ryder is given a second ball.

What is the probability that they are both given a pink ball?

$\frac{\square}{\square}$ $\frac{1}{3}$

What is the probability that Isaac is given a red ball and Ryder is given a pink ball?

$\frac{\square}{\square}$ $\frac{1}{3}$

If this process is repeated 30 times, how many times would you expect them both to be given different coloured balls?

$\square$ 20