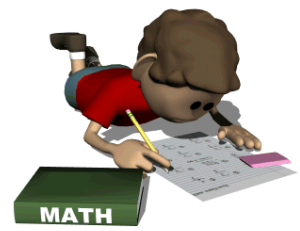


Warm Up Grade 8

Date: Oct. 19



No calculators

Decimal → %

(x Rule 100)

1) a) What is 0.124 as a percent?

12.4 %

b) Write $\frac{13}{20}$ as a percent.

$\frac{13}{20} \times \frac{5}{5} = \frac{65}{100}$

65 %

Use Calculator

2) Jim made 14/56 and Bob made 5/25 on a test. Who made the better mark?

Jim

$\frac{14}{56}$ Top ÷ Bottom (14 ÷ 56)

$= 0.25$ Decimal ×100

$= 25\%$

Bob

$\frac{5}{25} = \frac{20}{100} = 20\%$ (×4)

Jim made the higher percent.

WORKSHEET

Solutions

Evaluate each and show work

1) 75% of 80

x 3 25% of 80 = 20 x 3

75% of 80 = 60

2) 10% of 600

=60

3) 25% of

=25

4) 40% of 110

10% of 110 = 11

x4 ( )x4

40% of 110 = 44

5) 30% of 70

10% of 70 = 7

x 3 x 3

30% of 70 =21

6)40% of 2

10% of 20 = 2

x 4 x 4

40% of 20 = 8

7) 70% of 80

10% of 80 = 8

70% of 80 = 7 x 8 =56

8) 80% of 50

10% of 50 = 5

80% of 50 = 5 x 8 =40

9) 70% of 180

10% of 180 = 18

70% of 80 = 7 x 18 =126

10) 80% of 90

10% of 90 = 9

80% of 90 = 9 x 8 =72

11) 5% of 80

10% of 80 = 8

5% of 80 = 8/2 =4

12) 3% of 30

1% of 30 = 0.3

3% of 30 = 0.3x3

=0.9

13) 2% of 100

1% of 100 = 1

2% of 100 = 1x2 =2

14) 4% of 160

1% of 160 = 1.6

4% of 160 = 1.6x4

=6.4

15) 20% of 2700

10% of 2700 = 270

20% of 80 = 270 x 2 =540

14) 20% of 160

10% of 160 = 16

20% of 160 = 16 x 2 =32

1) Mentally calculate

a) 60% of 50

10% of 50 = 5

×6 ×6

60% of 50 = 30

b) 75% of 36

25% of 36 = 9

(like ÷ by 4)

×3 ×3

75% of 36 = 27

c) 15% of 70

10% of 70 = 7 ÷2

5% of 70 = 3.5 ÷2

+

15% of 70 = 10.5

2) Express the fraction as a percent. $\frac{21}{28}$

Reduce first

$\frac{21 \div 7}{28 \div 7} = \frac{3}{4} \times \frac{25}{25} = \frac{75}{100} = 75\%$

0.75 Decimal

1% of

x by 0.01

Same as ÷ by 100

Relates to

10
20
30
40
50
60
70
80
90 %

10 %

x by 0.1

Same as ÷ by 10

Relates

25
50 %
75
100

25 %

x by 0.25

same as ÷ by 4

Relates

50 %

100 %

50 %

x by 0.5

same as ÷ by 2

Relates

100 %

Relates

% 2 3, 4, 5, 6, 7, 8, 9

Estimating

$\doteq$ -close to

49% of 82

$\approx 50\% \text{ of } 82 = 41$

25% of 98

$\approx 25\% \text{ of } 100 = 25$

9% of 75

$\approx 10\% \text{ of } 75 = 7.5$

Finish sheet from Last day

Worksheet Gr 8 Day 2 Percent of Number & Estimating

on next 2 pages as well

WS

Grade 8 Percent of a Number day 2 Mentally

Show work to calculate the following:

(a) 10 % of 90 (b) 50 % of 42 (c) 25% of 60 (d) 20%

(e) 75 % of 24 (f) 15% of 80 (g) 1 % of 38 (h) 10%

(i) 11% of 120 (j) 30% of 15 (k) 2% of 400 (l) 5%

Use estimation to estimate the following

WS

1) 9% of 160

2) 24% of 80

3) 51% of 40

4) 73% of 60

5) 11% of 110

6) 29% of 60

7) 42% of 20

8) 58% of 50

9) 25% of 20

10) 50% of 300

11) 50% of 60

12) 75% of 120

13) 10% of 440

14) 20% of 500

15) 30% of 180

16) 40% of 160

17) At the local music concert 300 people attended. 40% of the people were adults and the rest were students.

A) How many adults attended?

B) How many students attended