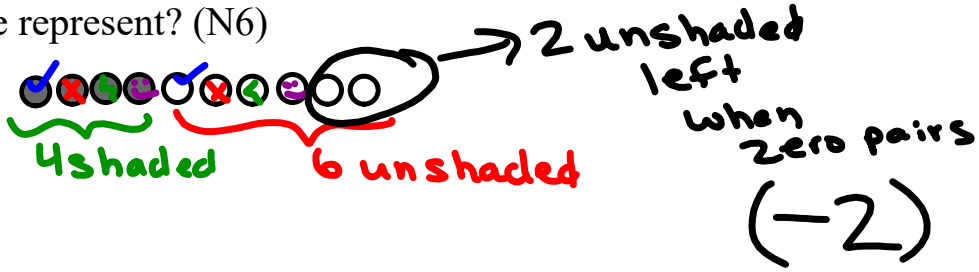
Review for Grade 7 District Math Assessment

Name:_____

● is positive
○ is negative

1) If shaded is positive and unshaded is negative, what integer does the picture represent? (N6)



2) Write the addition statement for the above

$(+4) + (-6) = -2$

3) In a store, you buy 5 items at $1.98 each and 3 items at $1.48 each. You give the clerk $20.00. Use estimation to decide about how much change you will receive. (N2)

$5 \times \$2 = \$10$

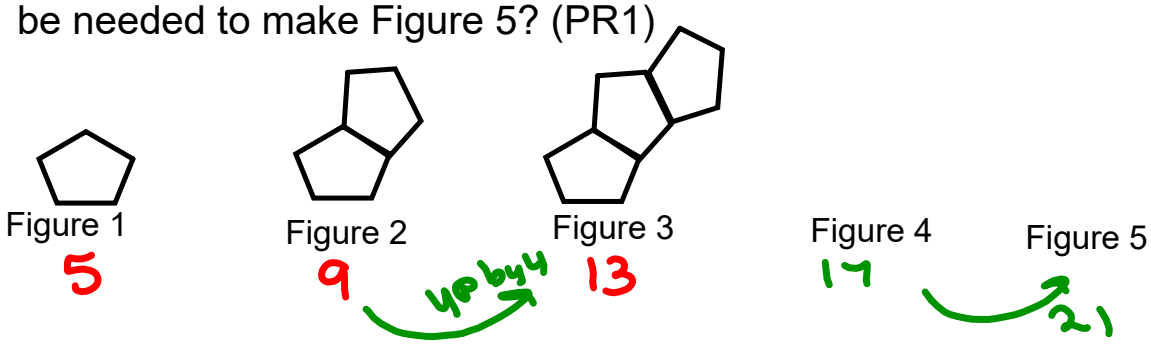
$3 \times \$1.50 = \$4.50$

$\$14.50$

20.00
-14.50

20 - 14 = 6
-0.50
5.50

4) If the pattern below is continued, how many line segments would be needed to make Figure 5? (PR1)



a) 13 b) 17 c) 21 d) 25

5) Find the median of the following numbers -11, -17, -25, -15 and -25. (SP1)

-11, -15, -17, -25, -25

↑ median

6) Complete the table below to represents the relation $7n - 2$, where n represents the term number? (PR2) Show work

Term Number	1	2	3	4	5
Term	5	12	19	26	33

7(1) - 2
7 - 2
5

7(2) - 2
14 - 2
12

7(3) - 2
21 - 2
19

7) Which table below to represents the relation 3n + 4, where n represents the term number? (PR2)

$3(1)+4$ $3+4=7$ $3(2)+4$ $6+4=10$

a)

Term Number	1	2	3	4	5
Term	4	5	6	7	8

b)

Term Number	1	2	3	4	5
Term	7	10	13	16	19

c)

Term Number	1	2	3	4	5
Term	7	11	15	19	23

d)

Term Number	1	2	3	4	5
Term	3	7	9	11	13

8. Evaluate 4m – 2, if m = 3.6. (PR5)

$$\begin{array}{r} 3.6 \\ \times\ 4 \\ \hline 14.4 \\ -\ 2 \\ \hline 12.4 \end{array}$$

9. Evaluate 6d + 7 for d= 4

$$6(4) + 7$$
$$24 + 7$$
$$31$$

10. a) Estimate 9.8 x 3.5

$$\approx 10 \times 3.5$$
$$\approx 35$$

B) Find the actual product

$$\begin{array}{r} 9.8 \\ \times\ 3.5 \\ \hline 49\ 0 \\ 294\ \ \\ \hline 34.30 \end{array}$$

11. The temperature at 10:00 pm was – 12°C. By midnight it had dropped 4°C. From midnight to 9:00 am the temperature rose 7°C. What was the temperature at 9:00am? (N6) SHOW WORK

$(-12) - (4) + (7)$

$(-12) + (-4) + (+7)$

$(-16) + (+7)$

-9

12) Evaluate the following

a) (-5) - (+7)

$(-5) + (-7)$

(-12)

b) (+11) - (-8)

$(+11) + (+8)$

$(+19)$

c) (+7) + (-10)

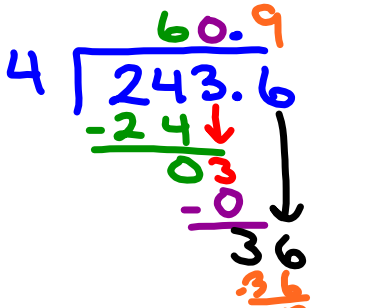
(-3)

d) (-6) +(-7)

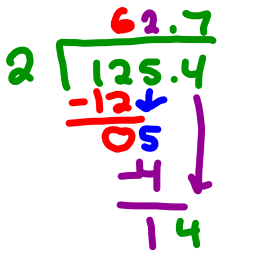
same

(-13)

13. Determine the quotient of 24.36 ÷ 0.4



12.54 ÷ 0.2



14. Estimate the quotient of 28.2 ÷ 3.98

$28 \div 4$

≈ 7

15) Evaluate $-7 + 3y$, if $y = 5$.

$-7+3(5)$

$(-7)+15$

$= (+8)$

16. You sold the following items to 5 people: $12 , $22, $8, $8, $10.

a) What was the mean cost of the items? (Show work)

Sum: $12+8+22+8+10$

$20+30+10$

$50+10$

Sum = 60

$\frac{\text{Sum}}{\#\text{data}} \quad \frac{60}{5} = \$12$

b) What was the median cost?

8, 8, 10, 12, 22

c) What was the range of the cost?

Big - Small

$22 - 8$

14

d) What was the mode cost? 8

17) Reduce the following fractions to lowest terms

a) $\frac{14}{21}$ $\div 7$ $\div 7$ $\quad \frac{2}{3}$

b) $\frac{6}{10}$ $\div 2$ $\div 2$ $\quad \frac{3}{5}$

c) $\frac{24}{36}$ $\div 6$ $\div 6$ $= \frac{4}{6}$ $\div 2$ $\div 2$ $= \frac{2}{3}$

$\frac{24}{36} \div 12 \div 12 = \frac{2}{3}$

$\frac{24}{36} \div 4 \div 4$ $\quad \frac{6}{9} \div 3 \div 3$ $\quad \frac{2}{3}$

18) Change the mixed Fraction to Improper

a) $4\frac{2}{3}$ $\times 3$ $+2$ $= \frac{14}{3}$

b) $1\frac{6}{11}$ $\quad \frac{17}{11}$

c) $5\frac{3}{4}$ $\quad \frac{23}{4}$

d) $7\frac{1}{8}$ $\quad \frac{57}{8}$

19) Change the improper Fraction to mixed

a) $\frac{14}{6}$ $\quad 2\frac{2}{6}$

b) $\frac{127}{10}$ $\quad 12\frac{7}{10}$

c) $\frac{13}{2}$ $\quad 6\frac{1}{2}$

d) $\frac{48}{5}$ $\quad 9\frac{3}{5}$

20) 13. What is the sum of $2\frac{1}{3} + \frac{5}{6}$?

$\frac{7 \times 2}{3 \times 2} + \frac{5}{6}$

Need C.D

$\frac{14}{6} + \frac{5}{6}$

$\frac{19}{6} = 3\frac{1}{6}$

21) Which of the following is an estimate for the area of a circle with a radius of 5 cm? ($A = \pi r^2$)

a) $15cm^2$ b) $45cm^2$ c) $75cm^2$ d) $30\ cm^2$

πr^2

$3 \times r \times r$

$3 \times 5 \times 5$

75

22) Paul tosses a six-sided die. What is the probability that he will get a number greater than four?

greater than 4 ⇒ 5, 6 (2 outcomes)

$P(\text{greater than 4}) = \frac{2}{6} = \boxed{\frac{1}{3}}$

23) A bag contains 4 red marbles, 6 blue marbles, 5 white marbles and 3 purple marbles. What is the probability for picking each of the following: 18 marbles

a) Probability of picking a red marble

$P(\text{Red}) = \frac{\#\text{red}}{\text{total}} = \frac{4}{18} = \frac{2}{9}$

b) Probability of picking a black marble

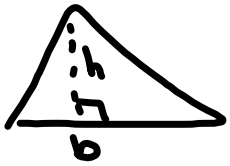
$P(\text{Black}) = \frac{0}{18} = 0$

c) Probability of picking a marble that is NOT purple

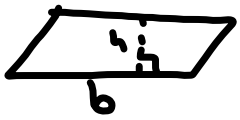
$P(\text{Not purple}) = \frac{15}{18} = \frac{5}{6}$

$A_{\square} = L \times w$

$A_{\triangle} = \frac{b \times h}{2}$



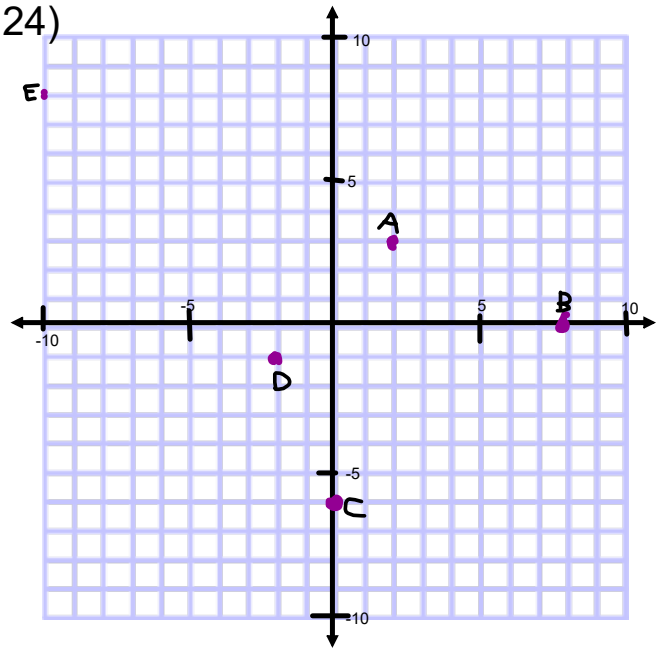
$A_{\square} = b \times h$



$A_{\circ} = \pi r^2$

$3.14 \times r \times r$

24)



Write the coordinates for each tof the points on the grid.

A (2, 3)

B (8, 0)

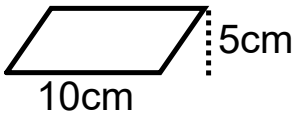
C (0, -6)

D (-2, -1)

E (-10, 8)

25) Find the area of each shape

a)

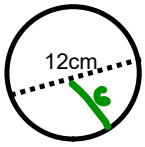


$A_{\square} = b \times h$

$= 10cm \times 5cm$

$= 50cm^2$

b)



$d = 12cm$

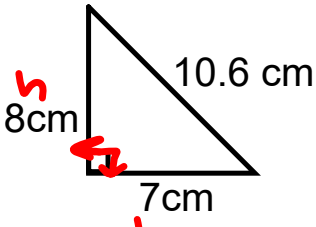
$r = 6cm$

$A_o = \pi r^2$

$3 \times 6cm \times 6cm$

$108cm^2$

c)



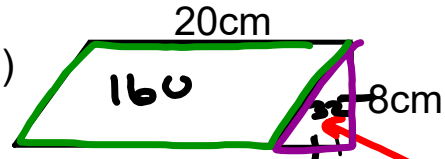
$A_{\triangle} = \frac{b \times h}{2}$

$= \frac{8cm \times 7cm}{2}$

$\frac{56cm^2}{2}$

$= 28cm^2$

d)



2 shapes

$A_{\square} = b \times h$

$= 20cm \times 8cm$

$= 160cm^2$

$A_{\triangle} = \frac{b \times h}{2}$

$\frac{8cm \times 8cm}{2}$

$= \frac{64cm^2}{2}$

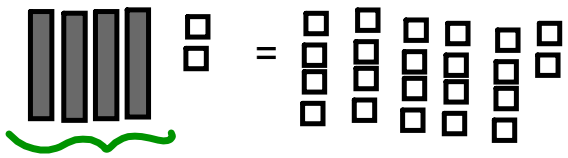
$= 32cm^2$

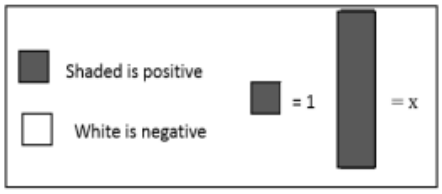
Total SA $= 160cm^2$

$+ 32cm^2$

$192cm^2$

26) What equation does the following model?





$4x - 2 = -22$

27) What is the value of x in the equation 25 = 5 -10 ? (PR6)

$5x - 10 = 25$ (+10 +10)

$\frac{5x}{5} = \frac{35}{5}$

$x = 7$

28) Solve each of the following

a) $3x - 7 = 11$

$3x - 7 + 7 = 11 + 7$

$3x = 18$

$\frac{3x}{3} = \frac{18}{3}$

$x = 6$

b) $\frac{x}{3} + 4 = 5$

$\frac{x}{3} + 4 - 4 = 5 - 4$

$\frac{x}{3} = 1$

$3 \times \frac{x}{3} = 1 \times 3$

$x = 3$

c) $x + 12 = 21$

$x + 12 - 12 = 21 - 12$

$x = 9$

29) Find the circumference of a circle if the radius is 14cm.

$C = \pi d$ or $C = 2\pi r$

$2 \times 3.14 \times 14\text{cm}$

$= 87.92\text{cm}$