Dot connect and column match

Name: _____ **Date:** _____

1. Draw a line from each sentence on the left to the equation on the right that can be used to find the missing value.

25% of n is 80.	•	• $n = 0.25(80)$
n is 25% of 80.	•	• $0.25n = 80$
80% of n is 25.	•	• $25 = n - 80$
25 is 80 less than n	•	• $0.8(n) = 25$
80 more than n is 25.	•	• $n + 80 = 25$

2. A card is randomly drawn from an ordinary deck of 52 cards. Match each scenario of a card being drawn with the correct probability.

a heart	•	• $\frac{1}{52}$
a black king	•	• $\frac{1}{26}$
a king of hearts	•	
a numbered card greater than 5	•	• $\frac{1}{4}$
		• $\frac{5}{13}$

3. Match the percentage that describes the relationship between each pair of numbers. One percentage will be left over. Be prepared to explain your reasoning.

7 is what percentage of 14?	•	• 4%
5 is what percentage of 20?	•	• 10%
3 is what percentage of 30?	•	• 25%
6 is what percentage of 8?	•	• 50%
20 is what percentage of 5?	•	• 75%
		• 400%

4. Dalton saw animals on a farm.


28 •


13 •


67 •


55 •

• sixty-seven

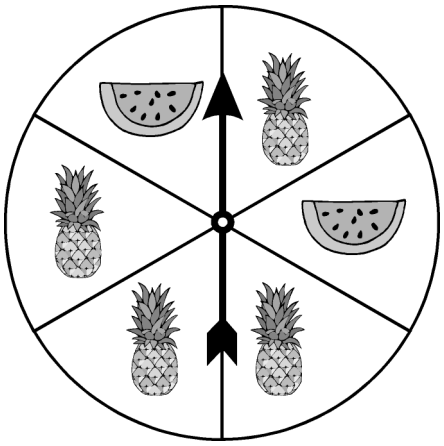
• fifty-five

• twenty-eight

• thirteen

Draw a line to match each numeral with the correct word.

5. Look at the spinner.



Match each word on the left with the event that it describes.

certain •

likely •

unlikely •

impossible •

• The spinner lands on a pineapple.

• The spinner lands on an orange.

• The spinner lands on a fruit.

• The spinner lands on a watermelon slice.

6. Match each percent on the left with its equivalent fraction on the right.

800%	$\frac{4}{50}$
80%	$\frac{6}{8}$
75%	$\frac{8}{20}$
40%	$\frac{12}{15}$
8%	$\frac{80}{10}$

7. Each number on the left contains an underlined digit.

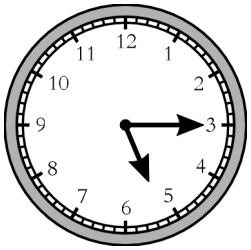
Draw a line to connect each number with the correct place value of the underlined digit.

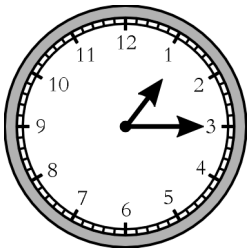
12,5<u>0</u>9	Ones
<u>1</u>5,231	Tens
63,84<u>8</u>	Hundreds
78,<u>0</u>33	Thousands
53,<u>7</u>01	Ten Thousands
4<u>7</u>,396	Hundred Thousands

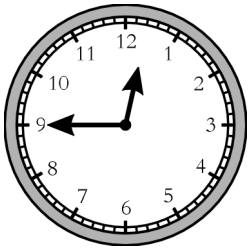
8. Draw a line to match each coin with its value.

- $0.10
- 5¢
- one cent
- 25¢

9. Match each clock with the correct time on the right.

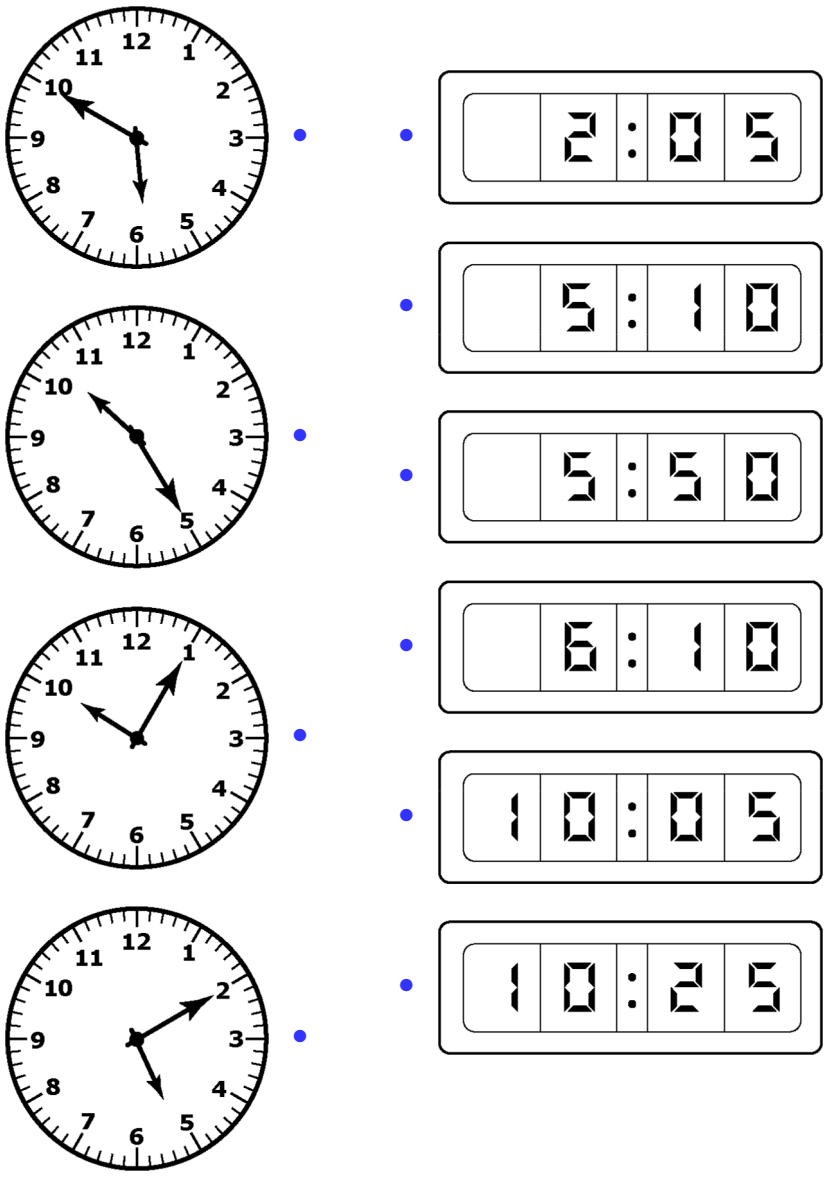






- quarter past five
- half past one
- quarter to one
- half past five
- quarter past one

10. Draw a line to connect each analog clock on the left to the digital clock on the right that shows the same time. Some digital clocks will not be used.



11. Match each inequality on the left with the corresponding graph on the right.

___ $-5 < x \leq -1$

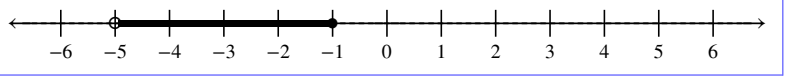
___ $-5 \leq x \leq -1$

___ $x \geq -5$ and $x \leq -1$

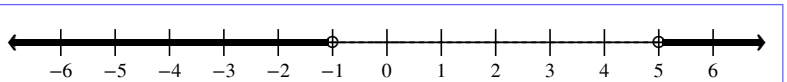
___ $x < -1$ or $x > 5$

___ $|x + 3| \geq 2$

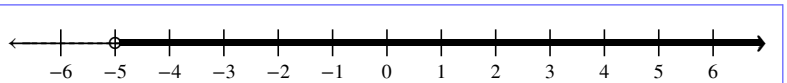
A



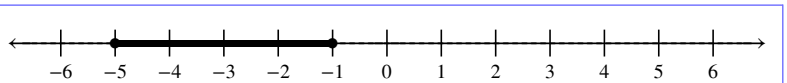
B



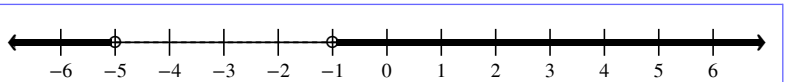
C



D



E



12. In the left column, below, are examples of Algebraic properties. Match each example with the corresponding property on the right.

___ $(a + b) + c = a + (b + c)$

___ $a + 9 = 9 + a$

___ $a(b + c) = ab + ac$

___ $xy(8) = (8)xy$

___ $16(\frac{1}{2}c) = (16 \cdot \frac{1}{2})c$

A Commutative Property of Add.

B Commutative Property of Mult.

C Associative Property of Add.

D Associative Property of Mult.

E Distributive Property

13. Match the correct probability to each event. Not all probabilities will be used.

_____ A coin will land heads up.

_____ The sun will rise tomorrow.

_____ A card drawn from a standard deck will be a club.

0%

25%

50%

75%

100%

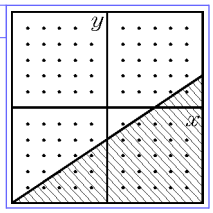
14. Match each inequality with the graph that best represents it. Not all graphs will be used.

___ $2x - 3y \leq 6$

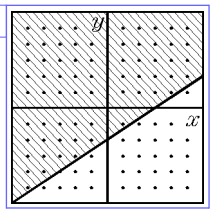
___ $2x - 3y \geq 6$

___ $2x - 3y < 6$

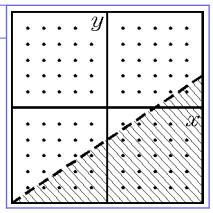
A



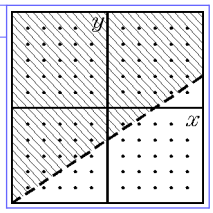
B



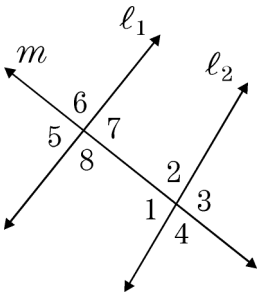
C



D



15.



The figure shows lines ℓ_1 and ℓ_2 and transversal m. Describe each angle pair using the list on the right. The descriptions can be used more than once. If no description applies, leave the the answer blank.

_____ $\angle 1$ and $\angle 3$

_____ $\angle 1$ and $\angle 5$

_____ $\angle 1$ and $\angle 8$

_____ $\angle 2$ and $\angle 3$

_____ $\angle 2$ and $\angle 5$

_____ $\angle 2$ and $\angle 8$

_____ $\angle 3$ and $\angle 5$

same side interior

same side exterior

alternate interior

alternate exterior

corresponding

vertical

linear

16. Tell which graph goes with each equation. (There will be a one-to-one match.)

____ $x^2 + y^2 = 36$

____ $x^2 - y^2 = -49$

____ $x^2 - y^2 = -25$

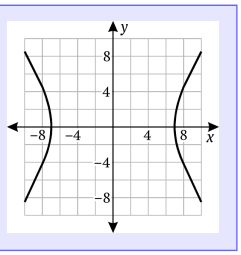
____ $x^2 - y^2 = -16$

____ $x^2 - y^2 = 16$

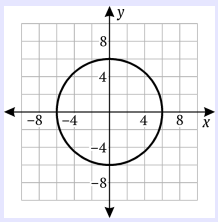
____ $x^2 - y^2 = 49$

____ $x^2 + y^2 = 81$

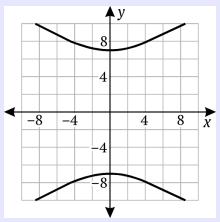
A



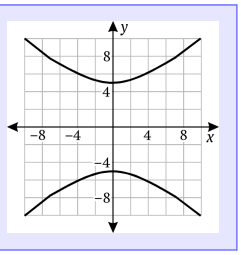
B



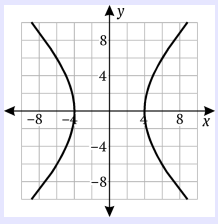
C



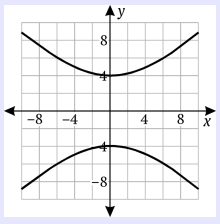
D



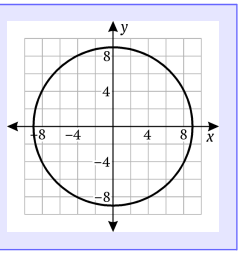
E



F

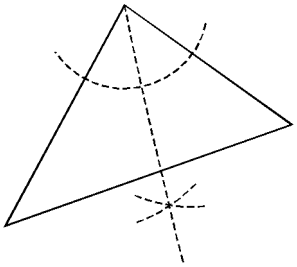


G

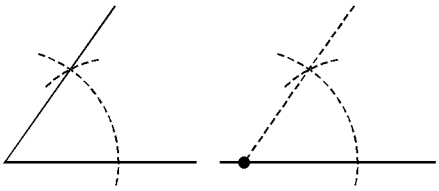


17. The four diagrams illustrate contructions with a straightedge and compass. For each diagram, use the menu to tell what is being constructed.

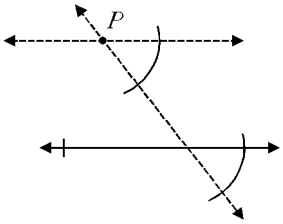
Altitude
Parallel line
Angle bisector
Congruent angles



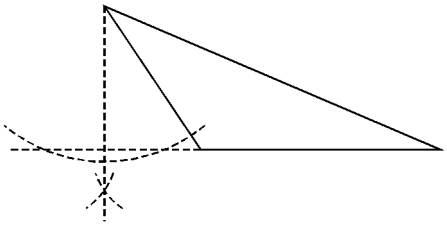
Altitude
Parallel line
Angle bisector
Congruent angles



Altitude
Parallel line
Angle bisector
Congruent angles



Altitude
Parallel line
Angle bisector
Congruent angles



18. Using the properties of exponents, state if the equations are true or false.

True
False $x^2 + x^3 = x^5$

True
False $x^3 \cdot x^5 = x^8$

True
False $(x^4)^3 = x^7$

True
False $\frac{x^7}{x^3} = x^4$

19. Match the fractions on the left with the shaded part of the diagrams on the right.

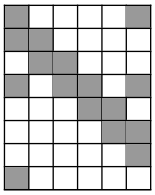
___ $\frac{5}{8}$

___ $\frac{1}{2}$

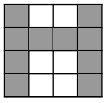
___ $\frac{1}{3}$

___ $\frac{2}{3}$

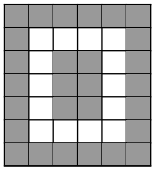
(A)



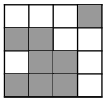
(B)



(C)



(D)



20. Next to each operation, write the letter of the correct result. Results may be used more than once.

___ Add 1 even number and 1 odd number.

___ Multiply 2 even numbers.

___ Add 2 odd numbers.

___ Multiply 2 whole numbers.

___ Multiply 1 even number and 1 odd number.

(A) the result is always even

(B) the result is always odd

(C) the result can be even or odd

21. Match each model with the correct expression.

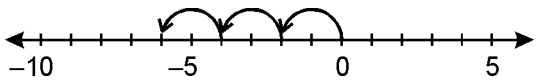
___ -3×3

___ -2×3

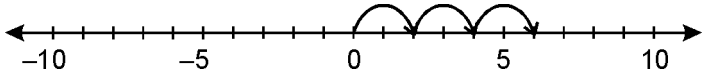
___ 2×3

___ 3×3

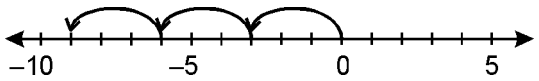
(A)



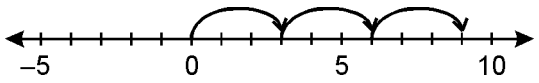
(B)



(C)



(D)



22. On the left are examples of Algebraic properties. Write the letter of the correct property in the box next to each example.

___ $9x(yz) = 9(xy)z$

___ $3 + p + q = p + q + 3$

___ $5 + (a + b) = (5 + a) + b$

___ $4(x + 3) - 2 = 4x + 12 - 2$

___ $2 + 5(x + 1) = 2 + (x + 1)5$

(A) Associative property of addition

(B) Associative property of multiplication

(C) Commutative property of addition

(D) Commutative property of multiplication

(E) Distributive property

23. Match each inequality on the right with the corresponding statement on the left.

___ Three times a number n is greater than 8.

___ A number n is greater than 8 more than three times n.

___ Three times a number n is greater than 8 more than n.

___ A number n is less than three times the sum of n and 8.

(A) $3(n + 8) > n$

(B) $3n > n + 8$

(C) $3n + 8 < n$

(D) $3n > 8$

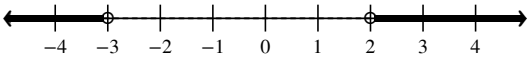
24. Next to each inequality write the letter of the number line that represents its solution.

___ $|2x - 1| < 5$

___ $|2x + 1| > -5$

___ $|2x + 1| < 5$

___ $|2x + 1| > 5$

(A) 

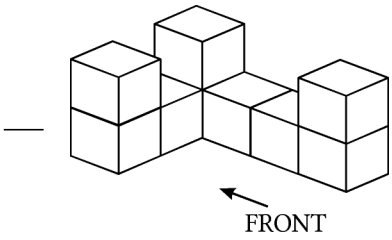
(B) 

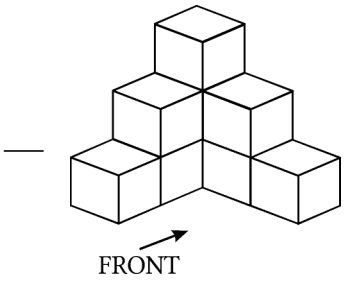
(C) 

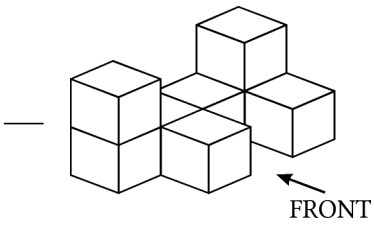
(D) 

25. The solid figures on the left are built with cubes. The arrows point to the view from the front.

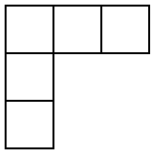
On the blank next to each solid figure, write the letter of the correct left side view.



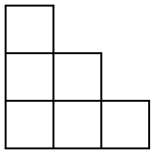




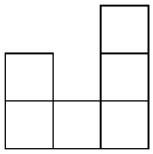
(A)



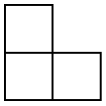
(B)



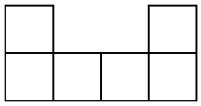
(C)



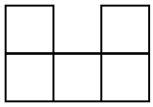
(D)



(E)

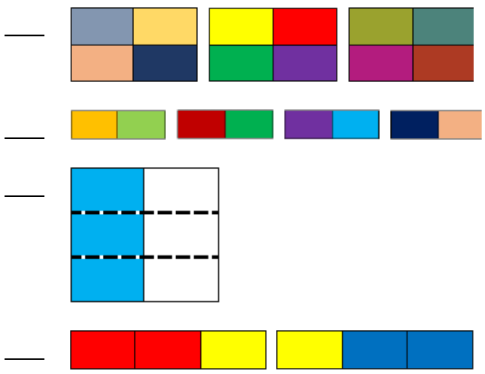


(F)



26. Match each model on the left to the correct question on the right.

Model



Question

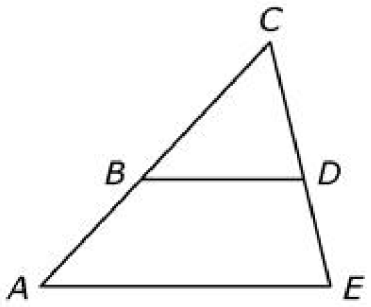
(A) How many $\frac{1}{2}$'s are in 4?

(B) How many $\frac{1}{4}$'s are in 3?

(C) How many $\frac{2}{3}$'s are in 2?

(D) How many $\frac{1}{6}$'s are in $\frac{1}{2}$?

27.



$\overline{BD} \parallel \overline{AE}$

Complete the proof $\frac{AB}{BC} = \frac{ED}{DC}$ above by matching each Statement to the correct Reason.

Statements	Reasons
___ $\overline{BD} \parallel \overline{AE}$	(A) Corresponding angles of parallel lines cut by a transversal are congruent
___ $\angle ACE \cong \angle BCD$	(B) Corresponding sides of similar triangles are proportional
___ $\angle CAE \cong \angle CBD$	(C) AA similarity criterion
___ $\triangle ACE \sim \triangle BCD$	(D) Algebraic simplification
___ $\frac{AC}{BD} = \frac{EC}{DC}$	(E) Subtraction property of equality
___ $\frac{AB + BC}{BC} = \frac{ED + DC}{DC}$	(F) Given
___ $\frac{AB}{BC} + 1 = \frac{ED}{DC} + 1$	(G) Reflexive property of congruence
___ $\frac{AB}{BC} = \frac{ED}{DC}$	(H) Substitution