

### Y3 Foundations SAMPLE Thinking Skills Questions

#### Data Calculations

Kate and her mom are going to the mall to buy some school supplies. Kate needs the following items: 5 notebooks, 1 set of markers, 1 ream of coupon bond, and 1 set of crayons. The items, prices, and variations are shown in the table below.

ITEM	VARIATION	PRICE
NOTEBOOKS (5 PCS)	SPIRAL	\$15
	COMPOSITION	\$18
MARKERS	NON-WASHABLE	\$17
	WASHABLE	\$25
REAM OF COUPON BOND	THIN PAPER TYPE	\$12
	THICK PAPER TYPE	\$18
CRAYONS	PASTEL CRAYONS	\$6
	WAX-BASED CRAYONS	\$9
	CHARCOAL CRAYONS	\$14

If Kate and her mom go for the cheapest options, how much would they have to pay?

- A. \$45
- B. \$50
- C. \$57
- D. \$64

**Ans:** If Kate and her mom go for the cheapest options, they would only have to pay \$50 for all items.

ITEM	VARIATION	PRICE
NOTEBOOKS	SPIRAL	\$15
MARKERS	NON-WASHABLE	\$17
REAM OF COUPON BOND	THIN PAPER TYPE	\$12
CRAYONS	PASTEL CRAYONS	\$6
		\$50

**Option B is the correct answer.**

### ***Fallacy Detection***

Andrew was studying his science subject and learned about storms and their creation. Turns out that heavy humidity is sometimes felt before and after the arrival of strong storms. These are known as "pop-up" storms or "Air-Mass" thunderstorms. Strange enough, a recent storm passed by their city, but it was not humid at all.



**Andrew:** "The weather forecast station referred to the recent weather condition as a 'storm', but it wasn't humid before and after its wake. They were wrong and shouldn't have called it a storm."

**Which among the options best describes the flaw in Andrew's statement?**

- A. Andrew assumed that 'storm' had another meaning in the conversation.
- B. Andrew thought all storms are supposed to cause heavy humidity in their wake.
- C. Andrew could not provide evidence that the weather forecast station was wrong.
- D. Andrew based his claim on his personal understanding of storms.

**Ans:** Andrew assumed that all storms cause heavy humidity in their wake when in fact, the statement mentioned how the condition only applies "sometimes" and not to all.

Thus, **B is the correct answer.**

### ***Decoding Artificial Language, Letter and Symbol Series***

Sadie has seven cubic bricks. Each brick has a different letter on each face.

The letters on each brick are

Brick 1 - O T S Q

Brick 2 - U H J I

Brick 3 - R E S X

Brick 4 - K G N L

Brick 5 - U A Q W

Brick 6 - F R I V

Brick 7 - P A X Y

**Which one of the following can Sadie spell out with her bricks?**

- A. PARKOUR
- B. FURTHER
- C. SAVAGES
- D. ORANGES

**Ans:** The bricks could NOT form the following words since they do not use all the bricks:

FURTHER - 6231

SAVAGES - 156743 or 176543

ORANGES - 16743 or 13743

Only the word PARKOUR can be spelt with all of her bricks.

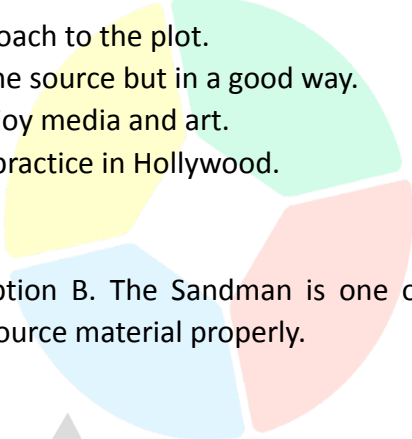
PARKOUR - 7564123 or 7534126

**Option A is the correct answer.**

### ***Analysing Arguments and Drawing Conclusions***

The recent adaptation of "The Sandman" was somewhat shocking for viewers since not only was it quite different from the original source, but it was also surprisingly good as it tried to stray away from what the book initially told. It became a masterclass in reminding viewers that no one should be able to gatekeep or prevent people from including themselves in art appreciation.

**Which among the following shows the main conclusion of the passage?**

- 
- A. The Sandman was a hit among viewers due to its unique approach to the plot.
  - B. The Sandman is an interesting show that strayed away from the source but in a good way.
  - C. Gatekeepers ruin the entire experience of people trying to enjoy media and art.
  - D. Straying away from the original source material is a common practice in Hollywood.

**Ans:** All the statements point toward the conclusion found in Option B. The Sandman is one of those interesting movies that surprisingly pulls off straying away from the source material properly.

Thus, **B is the correct answer.**

### ***Logical Statements***

Tracy wants to paint portraits. To paint portraits, one needs complete art materials and constant painting practice. To get constant painting practice, one must hire a good painting mentor. Good painting mentors can only be found by people who know their contact information and have the free time to call them.

**Tony:** "If Tracy knows the contact information of a good painting mentor and has the free time to give them a call, then she can paint portraits."

**Tammy:** "If Tracy can paint portraits, she must have hired a good painting mentor."

**If the information in the box is true, whose reasoning is correct?**

- A. Tony only
- B. Tammy only
- C. Both Tony and Tammy
- D. Neither Tony nor Tammy

**Ans:** The best way to deal with this type of question is to list down the steps, if any can be derived from the conditions, on how to achieve the desired goal. The goal here is to paint portraits.

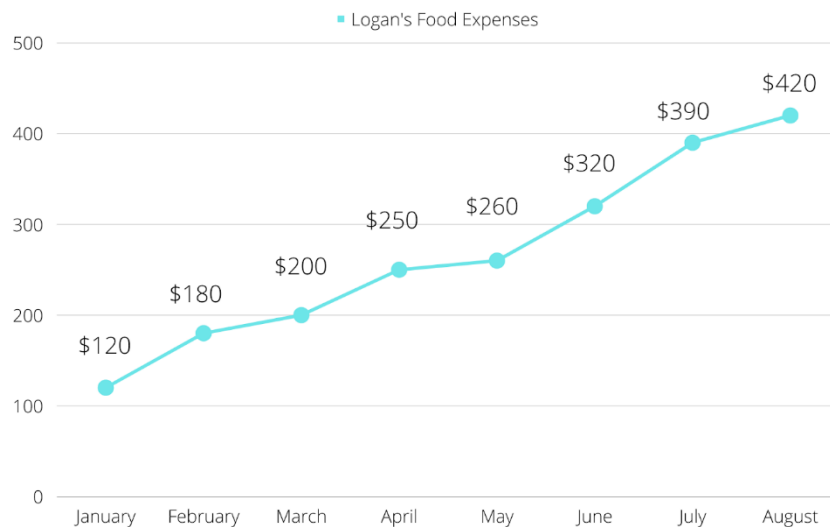
Incorrect	Correct
<ol style="list-style-type: none"> <li>1. Achieve your goal of being able to paint portraits.</li> <li>2. Secure yourself with complete art materials and have constant practices with your mentor.</li> <li>3. Hire a good painting mentor.</li> <li>4. Know the contact information of a good painting mentor and spare some time to call them.</li> </ol>	<ol style="list-style-type: none"> <li>1. Know the contact information of a good painting mentor and spare some time to call them.</li> <li>2. Hire a good painting mentor.</li> <li>3. Secure yourself with complete art materials and have constant practices with your mentor.</li> <li>4. Achieve your goal of being able to paint portraits.</li> </ol>

Tony is incorrect because knowing the contact information of a good painting mentor and having the free time to call them does not automatically mean that one already knows how to paint. It's a leap in the logical process. On the other hand, Tammy is correct because being able to paint portraits means Tracy has gone through the preceding steps, which includes having hired a good painting mentor.

**Option B is the correct answer.**

### Relevant Selection

The line chart below represents Logan's food expenses for the past 8 months.



**Which of the following months had the greatest difference between Logan's food expenses?**

- February and January
- April and March
- June and May
- July and June

Ans :

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG
120	180	200	250	260	320	390	420

August - July = \$420 - \$390 = 30

July - June = \$390 - \$320 = 70

June - May = \$320 - \$260 = 60

May - April = \$260 - \$250 = 10

April - March = \$250 - \$200 = 50

March - February = \$200 - \$180 = 20

February - January = \$180 - \$120 = 60

July and June had the greatest difference. **Option D is the correct answer.**

### Logic Games

Ramna is arranging her study table. She has a total of 6 items: pad paper, black ballpen, red marker, calculator, laptop, and highlighter. The items were arranged in the following order:

- The red marker is next to the laptop but not directly
- The pad paper is placed somewhere on the right side of the black ballpen.
- The black ballpen is in between the highlighter and the calculator.
- The calculator is somewhere on the left of the black ballpen.

**If Ramna wants to reverse the sequence of the items, which items are located at the centre, in the proper order from left to right?**

- A. Highlighter then red marker.
- B. Red marker then highlighter.
- C. Highlighter then laptop.
- D. Laptop then highlighter.

Ans:

Initial positions:

Calculator - Black Ballpen - Highlighter - Laptop - Pad Paper - Red Marker

Reversed positions:

Red Marker - Pad Paper - Laptop - Highlighter - Black Ballpen - Calculator

Since there are six items, the centre will be positions 3 and 4, which are the positions of the laptop and the highlighter.

Position 3 - Highlighter

Position 4 - Laptop

**When reversed:**

Position 3: Laptop

Position 4: Highlighter

**Option D is the correct answer.**

### ***Analysing and Evaluating Arguments, Theme Detection***

As a professional athlete and bodybuilder who consistently does his insanely high-intensity workouts in the gym, The Rock has often eaten tons of food with a huge number of calories after exercising. He makes this a habit every time he goes to the gym. The Rock's best friend, John Cena, has always criticised him for what he eats, claiming that he would get fat or, even worse, get diabetes if he ate that much.

**Which of the following statements, if true, best weakens the argument?**

- A. The Rock burns all the calories he intakes with his frequent exercises.
- B. John Cena knows what is best for The Rock as his close friend.
- C. Eating lots of calories has tons of healthy benefits.
- D. When exercising, consuming calories after is important to prevent injury

**Ans:**

The main premise of the argument coming from John Cena was that The Rock's eating habits risk him being fat or diabetic. This is refuted by the statement in option A, which tells us that whatever food The Rock consumes, he always gets to burn it off with his workouts. This means that The Rock does not accumulate too many calories regardless of how much he eats because he consistently exercises at high intensity.

**Option A is the correct answer.**

### Logical Statements

Callie, Rorie, Allen, Cole, Kimmy, and Shey went to the school clinic for their annual flu vaccination.

All of them have their own reserved vaccination session at different times. Each session is 10 minutes long and begins right after the previous session.

- Allen's vaccination session is after Cole's session.
- Shey's vaccination session is either first or last.
- Kimmy goes right before Cole
- Callie's vaccination session begins right after Rorie's session.
- Either Cole or Allen must be scheduled for the third vaccination session.

**If Rorie has to wait half an hour before his turn, which of the following must be true?**

- A. Allen's session is 4th.
- B. Cole's session is 5th.
- C. Cole's session is 2nd.
- D. Rorie's session is 5th.

**Ans:**

- Allen's vaccination session is after Cole's session.
- Shey's vaccination session is either first or last.
- Kimmy goes right before Cole.
- Callie's vaccination session begins right after Rorie's session.
- Either Cole or Allen must be scheduled for the third vaccination session.

Shey's vaccination session is last because if she went in first, then Rorie would have to wait for 40 minutes before his turn.

The correct sequence is Kimmy > Cole > Allen > Rorie > Callie > Shey

It is true that Cole's vaccination session is 2nd in the sequence.

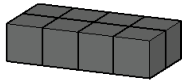
**Option C is the correct answer.**



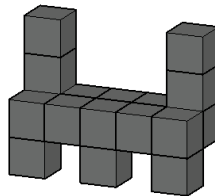
### SPATIAL REASONING (2D & 3D)

Adding an adhesive substance on each face that is involved in putting this solid **P** together, plus the process of connecting the faces, takes 20 seconds altogether.

Working at the same rate, choose the length of time needed to put solid **S** together.



P

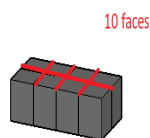


S

- A. 40 seconds
- B. 44 seconds
- C. 48 seconds
- D. 52 seconds

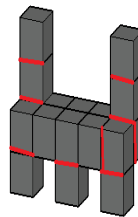
**Ans:**

For this problem, there is no need to identify how many cubes there are. We just need to identify how many faces we need to glue.



10 faces

P



10 faces  
(Solid P)  
+  
10 faces

S

For solid **P**, there are a total of 10 faces to be glued. Thus, 20 seconds divided by 10 faces gives a rate of:

**2 seconds/face**

For solid **S**, there are a total of 20 faces needed to be glued. With that, 20 faces multiplied by the rate of 2s/face gives a total of **40 seconds**.

**Option A is the correct answer.**